THE FARMERS' CABINET,

AND

AMERICAN HERD-BOOK.

DEVOTED TO

AGRICULTURE, HORTICULTURE, AND RURAL AND DOMESTIC AFFAIRS.

Perfect Agriculture is the true foundation of all trade and industry.—Liebig.

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BY JOSIAH TATUM,

EDITOR AND PROPRIETOR,

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Insect in the Corn.

Our readers will recollect a reference in the last number of the Cabinet, page 101, to a worm or moth, found in the grains of corn, by C. W. Haywood, of Germantown. The presence of this insect, as indicated in the ear left at the office, was viewed by the editor with considerable alarm. On the 14th ult. he addressed a letter to Dr. Harris, so well known for his researches in natural history. The importance of the matter to which it refers, will excuse the publication of the following extracts from it, in connection with the reply so kindly and so promptly returned. The letter refers to the "fly weevil, that destroys wheat in Virginia and some of the Southern and Western States." Is this weevil confined to Southern parts of our Union, or is it identical with that which is but too commonly found in this vicinity? We have frequently known granaries of rye very much injured by a weevil in New Jersey. It was our practice, when its appearance was feared, to sprinkle a little very finely powdered air slaked lime through the bin, among the grain. We have also heard it said, that the presence of sheep in a barn where grain is kept, is particularly offensive to the grain weevil.

The appeal made at the close of Dr. Harris's letter, will, we trust, be freely responded to. Great inconvenience results from the depredations of the worm in the locust tree. The value of this timber is perhaps not exceeded by that of any grown among us, yet it seems hardly worth while to attempt to cultivate the tree, as it is so soon, and so certainly, and so seriously injured by the worm. A remedy would be of great general benefit.—Ed.

The following is an extract from the editor's letter to Dr. Harris: "I received a day or two ago, from a friend at Germantown, in this vicinity, an ear of corn of last year's growth, most of the grains of which were perforated in a very singular manner, by an insect which has drawn its nourishment from the softer part, and of course, greatly diminished its value. C. W. Haywood, who gave it to me, stated that his attention was first directed to the matter some five or six weeks ago, by observing that his garret, where some five and twenty or thirty bushels of corn lay in the ear, was swarming with a dun coloured moth, which he soon ascertained had escaped from the grains. I enclose a few grains, from some of which I think it will be found the moth has not yet made his escape. Yesterday, while holding a grain in my hand, one came leisurely out, and I put a pin through it, intending to forward it herewith, but this morning it is mouldered to pieces. It would be gratifying to me to receive any information relative to this insect. My friend said he had not

learned that the corn of any of his neighbours had been similarly attacked.

"It is impossible to estimate the amount of injury that might be done to the great staple of our country by the depredations of this insect, should it widely extend through our corn-cribs."

Cambridge, Mass., Oct. 16th, 1846.

Respected Friend,—Your letter of the 14th instant, reminds me of the pleasure that I took in reading those numbers of the Farmers' Cabinet which you had the kindness to send to me from the 15th of March, 1844, to the 15th of May, 1845, inclusive.

You have some reason to be alarmed at the appearance of the insects in the corn-crib of your friend Haywood. Should they prevail to any extent in our country, they would prove a terrible scourge; now more than ever, since the potatoe is likely to fail us entirely, and we have nothing to supply its place save corn. Bread is the staff of life: we must take care that it be not broken.

The little dun-coloured moth which you saw come forth from a kernel of corn in your hand, is "the fly-weevil, that destroys wheat" in Virginia and some of the Southern and Western States. Shall I give it a more fearful name, by acknowledging that it is the *Angoumois moth*, the same insect that appeared in the provinces of *La Vendée* and *Angoumois*, in the west of France, more than a hundred years ago; that it continued to increase there for many years, till its ravages in 1760, attracted the attention of the government, when it was found to swarm in all the wheat fields and granaries of these provinces; when by its ravages the people were not only deprived of their principal staple, wherewith they were wont to pay their annual rents, their taxes, and their tithes, but were threatened with starvation, from the want of good and wholesome bread. Let us hope to be saved from the like calamity.

The great and good Linnæus, was filled with alarm on finding the pea-weevil in a parcel of peas received from America, fearing that he might be the means of introducing into his beloved Sweden so great an evil. How much more have we reason to dread the spreading of this *Angoumois moth* in our own country.

You will find some account of this moth in my Treatise on Insects Injurious to Vegetation, published in 1842. At that time the habits of the insect were not known to me from personal observation; all my attempts to obtain samples of infected grain containing living specimens, having been ineffectual, and my numerous letters and applications on the subject having remained unnoticed. Since then I have been more fortunate, and have had the insects in all their stages, living under my own eye. It does not seem to be generally known that this insect attacks maize, or corn, as we call it, as well as wheat. The fact was made known to me nearly two years ago. A friend in Worcester, Mass., told me that he found some corn that had been stored in his garret some time, contained insects in it; and he brought me two ears of this corn for examination. The corn, then appearing to be sound externally, was rolled up in several sheets of strong brown paper, and was tied securely and laid aside in a safe place. Some months afterwards, on opening the parcel, I found nearly a gill of dead moths in the paper, and three or four living ones. Every kernel appeared to have been perforated, and many had three or four holes in each of them. Some contained the insect in the worm state, and some had the chrysalis fully formed within them. The two ears were then put into a wide-mouthed glass bottle, which was corked tight, so as to prevent the future escape of the moths that might be developed from the worms and chrysalids remaining in the kernels. The moths have continued to come forth, and, as they were prevented from escaping, they paired and laid their eggs upon the corn in the bottle. Two broods have been produced in a single year; the first brood coming out of the corn early in March, and the second in September and October. Probably the appearance of the first brood was accelerated by the insects being kept in a warm room during the winter.

Having made accurate drawings of the insects in their several states, and written a scientific description of them, I have been trying to collect the statistics relative to them, in those parts of the country where they have heretofore appeared, with the design of drawing up for publication a memoir on the history of this depredator. Communications on the subject, addressed to me, will be very acceptable.

The moths are easily killed by the fumes of burning sulphur, and of charcoal, by steam, and by moderate heat otherwise applied. From experiments made in France, it would seem that violent agitation of the grain, continued during several hours, will destroy the insects in all their stages. I have, however, much more confidence in the application of heat, by drying the damaged grain in an oven or a kiln, heated to 160 degrees of Fahrenheit, in which the grain should remain during twelve hours.

This will effectually kill both the larvæ, or worms, and the eggs.

Proposals have been made to me to prepare another edition of my Treatise, with figures. I am therefore very desirous of obtaining the means for completing the history of two or three destructive insects noticed in the work. Permit me to ask your attention, and that of your correspondents, to the insect that bores in the pith of the locust tree, and causes the swellings of the young branches, described on page 295 of my Treatise; and also to the wheat caterpillar, of which a very imperfect account, extracted from various agricultural papers, is given on pages 445 to 457, of my work. My official duties in the University at Cambridge, have been such for some time past, as to deprive me of that leisure which the successful study of our destructive insects demands. I must therefore rely upon those of my agricultural and scientific correspondents who are interested in such subjects, to furnish me with such specimens and facts as are necessary to make another edition of this book more complete and useful than the former one has been.

In the hope that this appeal and this communication will be favourably received, I remain, very truly,

Your obliged friend,
THADDEUS WILLIAM HARRIS.

Newcastle County Agricultural Society.

AT the eleventh annual meeting of the Agricultural Society of Newcastle County, held at John Hall's Hotel, Wilmington, October 15th, 1846, John C. Clark was called to the chair; and John W. Andrews appointed Secretary.

A resignation was received and read, from James Canby, declining to be re-elected president of this Society, also one from James Webb, declining to be re-elected recording secretary, both of which were accepted.

The following gentlemen were then duly elected officers for the ensuing year:

President—John C. Clark.

Vice Presidents—Joseph Carr, John H. Price, James J. Brindley, M. B. Ocheltree, Rathmell Wilson, Giles Lambson, Philip Reybold, William Rothwell, John Jones, George Tybout.

Cor. Secretary—Dr. J. W. Thomson.

Rec. Secretary—Bryan Jackson.

Treasurer—James Canby.

Counsellor—Edward W. Gilpin.

Directors—Anthony Higgins, Samuel Canby, Z. B. Glazier, John W. Andrews, Dr. R. M'Cabe, Richard Jackson, William Robinson, Henry Latimer, James N. Cleland, Henry Du Pont, J. S. H. Boies, Jesse Gregg, Philip Reybold, Jr., Wm. Tatnall, Wm. S. Bouldin, John Higgins, Francis Sawdon, Edward T. Bellah.

On motion, Resolved, that the Horticultural Society be hereafter separated from this Society, and that it be recommended to form a Horticultural Society, and that the exhibition of manufactured articles be at the same time.

On motion, Resolved, That this meeting will hold its next annual exhibition at the grove by Hare's Corner, and it is also recommended that the meeting in 1848 be held at the Brandywine Springs, in 1849 at St. Georges, and in 1850 at Newark.

The Horticultural Society having been separated from the Agricultural Society, it was

Resolved, That it is expedient to hold the exhibitions of the Agricultural Society some four weeks later than they have been formerly held; say about the second week of October.

JOHN C. CLARK, *President.*
JOHN W. ANDREWS, *Sec.*

For the Farmers' Cabinet.

To Preserve Peach Trees.

TO THE EDITOR,—In the Cabinet of August 15th, is a letter that was read at a late meeting of the Farmers' Club, in New York, concerning the mischief done to peach trees by insects, and the way to prevent their ravages. I have now peach trees full of fruit in my garden, that were recovered by the free use of quick lime around the root, after having laid them bare for some distance around the tree.

A friend informs me that he has saved a fine Nectarine tree, by pouring strong tobacco juice, boiling hot, around the roots, laid bare, and sand put around the tree instead of the earth that was taken out. These trees never bore until they were treated in this way; the leaves were yellow and apparently full of insects, and finally all dropped off.

Yours, &c.,
LOUIS S. GILLIAMS.

St. Mary's co., Md., Sep. 3rd, 1846.

COTTON IN TURKEY.—The Sultan of all the Turkeys has resolved upon an extensive experiment in the cultivation of cotton in his Asiatic dominions. Dr. Davis and Dr. Smith, both of South Carolina, have already departed for Constantinople, to make the experiments in the service of the Sultan.—*Ledger.*

The Potatoe Disease.

As the season approaches when the ravages of this disease generally make their appearance, it is desirable to know how far investigations already entered into, have proceeded towards the detection of the cause of such an evil, and the suggestion of a remedy. Little has as yet been done on any organized plan in this country. In Europe, the case has been very different. In Holland and Belgium a committee was first appointed to collect facts calculated to throw light on the nature of the disease. In one of the Dutch provinces, Groningen, a separate commission was appointed for the same purpose.

In Germany, Liebig among others has turned his attention to the potatoe, and has lately published some observations on its nitrogenous constituents.

A number of the French philosophers, both alone, and under the auspices of the Central Society of Agriculture, have also attended to the subject. M. Payen has lately published three or four reports containing the results of elaborate microscopic and chemical researches.

The English government sent a commission to Ireland, of three distinguished scientific men, with directions to obtain as much information as possible on the nature and extent of the disease. In Scotland originated the most extended scheme of all. The subject was taken up in its several branches, as it is connected with botany, meteorology, entomology, and chemistry. Each branch was referred to a competent person, and the investigation is still in progress.

It is not, as yet, even certainly determined in what form the disease first attacks the plant. A great number of observers have considered that it is first seen in patches of dark coloured fungi on the leaves, thence gradually spreading down to the tubers. Dr. Ferguson, in Paris, and several others in England, think that they have detected the sporules of the fungus passing down through the stem in the ordinary circulation of sap. But there are well authenticated instances where the potatoe tops have remained green and flourishing while the tubers were much diseased; it cannot, therefore, be said with certainty that the disease first appears as a fungus on the leaves.

All agree that the nitrogenous compounds in the tuber are affected first, and to a peculiar state of these constituents, Liebig and others have referred the origin of the disease. The starch is attacked last, and often remains uninjured when the walls of the cellular tissue that enclose its globules are nearly destroyed. From potatoes which have become even offensive in their smell, perfectly good starch has been extracted. The manufacture of starch becomes of great importance in the economical disposition of the diseased potatoe.

The report of the Groningen commission ascribes the disease to the wetness and sudden changes of the two last years. M. Payen thinks that excessive moisture has predisposed the potatoe to yield to the attacks of fungi. Mr. Phillips, of London, has published a pamphlet, in which he ascribes the whole thing to the same cause. These are only a few of those who advocate this view of the question. All who have experienced much rain, assign this as the cause of disease, not knowing that it has been quite as bad on dry soils, and where there has been little rain. In all the west of Scotland, the summer of 1845 was considered rather a dry one, and in Islay, one of the western islands on the Scotch coast, the streams had not been so low for many years. The potatoes were as much affected in this part of Scotland as on the east coast. These facts seem quite decisive on the subject of wetness, for one well authenticated case where the disease has occurred under circumstances that preclude the idea of its being caused by wet, renders the theory quite untenable.

It is not so easy to decide whether atmospheric influence is the cause of the disease. In order to arrive at any certain conclusion on this point, extended meteorological observations are necessary. It is a singular fact that three or four counties forming the extreme northern point of Scotland were entirely free from it, without any essential difference in their season from that of the other counties, so far as was known by ordinary observers. The overseer of Mr. Fleming, of Barochan, in Renfrewshire, Scotland, lifted from one of his fields, on the 5th of September last, 1845, about five hundred weight of potatoes; these were stored in the house and remained perfectly sound at the date of his writing, in the middle of winter. From the same field on the 15th of September, were lifted five hundred weight more of the same potatoes. These, after being in the house two days, were tainted and decaying, as was the case before the end of September with all that were left in the field. In this instance, the crisis in the change from the healthy to the diseased tuber took place between the 5th and 15th of September. If the disease had shown itself at this time simultaneously in every part of that district, this fact would go far

to show that it was caused by some atmospheric influence; but the contrary was the case. In some fields it appeared as early as July, even on adjoining farms. The cause then remains still a mystery.

Of remedies, a very great number had been suggested; many without due consideration.

The commissioners sent by the English government into Ireland, were particularly unfortunate in this respect for want of a little practical knowledge added to their undoubted scientific attainments. All the means of prevention that have formerly proved successful, failed during the last year. An excellent method has been to change the seed every year, taking it from a high country to the lowlands, but this was found to have lost its efficacy. Gypsum and hot slaked lime, have also been of little benefit. The *greening* of potatoes intended for seed, by letting them lay in the sun, has been much recommended, and on cutting up the sun-burned potatoes, it has been found, according to some statements, that the greened parts were never diseased. It may be well to turn attention to this subject. In former years some persons succeeded in invigorating the crop by means of certain saline manures, and even during the last season it was thought that they were in some degree beneficial. We are not aware that any plan heretofore suggested, has proved uniformly successful over any great breadth of country.

The preservation of the crop during the winter has excited the deepest interest, and here also the number of methods proposed defies enumeration. The result of all the trials seems to be that the disease makes very slow progress, and in many instances none at all, when the potatoes are kept *perfectly dry* and *well ventilated.* Both of these conditions seem absolutely essential; packing them in dry absorbent earth, and even in charcoal, has proved a signal failure. It is necessary in any case where the disease has made much progress to pick over the heaps frequently, and carefully select all of the affected tubers. Kiln-drying has been resorted to in cases of extremity; this preserves the potatoe for food, but of course destroys its vitality.

Of the various plans proposed for the planting of potatoes in spring, none has been found more efficacious than cutting carefully selected potatoes into sets, containing each two or three healthy eyes. These sets are sprinkled with sulphuric or hydrochloric acid, diluted in the proportion of one pound of acid to four gallons of water. Newly slaked lime, or gypsum, is then added so as to form a crust over the cut surface.

The diseased potatoes have not been found injurious as food. In Scotland all kinds of domestic animals have been fed with them freely, and actually thrived upon them. We have, in the present communication, glanced merely at the principal points of interest hitherto touched, in the researches upon this subject; it is much to know which are false theories, even if we have made little positive advance.

Prof. Johnson, in a late communication, has informed us that from attentive consideration of the analyses of diseased and healthy potatoes made in his laboratory during the past year, he has been led to recommend the application of a certain manure to the potatoe crop, as calculated, in many cases if not universally, to arrest the disease. He does not speak of this with confidence, but as a thing yet to be tried. The publication containing his paper has not yet reached us, and we are consequently unable to say more.

We are forced to conclude that the origin and causes of this disease are at present unknown; its mysterious marks have appeared suddenly on two continents, separated by two oceans; under the heat and drought, rain and cold, on wet and dry, light and heavy soils, at every elevation, and in every variety of potatoe. Those who have most carefully investigated its peculiarities, most widely examined its range, are most undecided as to its cause.

Only by a very long and extended series of experiments, by an accumulation of accurate results, can we hope to arrive at a solution of the mysterious problem. No subject of the present day offers more attractions to the scientific man, or a wider field of usefulness. The very existence of a crop of incalculable importance seems at stake; practice has entirely failed in its efforts to correct the evil, and looks to science for that aid, which, if within the limits of possibility, should be afforded.—*Silliman's Journal of Science and Arts.*

New Material for Shingles.—A patent for a new invention has been obtained by Mr. William Beach, of Troy, for the application and mode of using cast-iron plates for covering roofs. "They are about one foot square, and made to fit into another, so as to render the roof water tight, by applying white lead to the joints. It can be afforded at sixteen cents the square foot, and comes at about half the cost of copper. They weigh 3½ pounds a square foot." It is easily attached to the roof, and promises to be of much utility.

Gathering and Packing Fruit.

About the autumn of the year 1836 or '37, I had some thirty or forty barrels of apples to pick.

In the orchard with some other fruit trees were some Newtown pippin trees, and all in a shocking state of neglect. As it had been let run wild, I set about to clear it up, and make it productive. In March I had the trees scraped with a dull hoe, to which I had put a short handle, to make it the more handy to scrape off the outside dead bark; after this, having trimmed the boughs and branches, I sent to town for a barrel of soft soap, with which I intended to smear the stems and branches of the trees, but when it came, judge of my surprise to find that the soft soap of New York is made of a little of the commonest grease, very little alkali, some salt, and a vast amount of water, making a quivering jelly;—such is the villainous compound called soft soap in New York;—as this was unfit for my purpose, I had to make some myself. With this in a bucket and an old whitewash brush, I sent a man into the orchard to smear all the stems of the fruit trees, and all the other trees which stood near by, knowing or thinking the little depredators I wished to be rid of, might lurk under the bark of any tree that stood in the orchard, or near it, as well as in the fruit trees. It was a "bearing year," as farmers call it, and there was a great crop of apples; and I had very few wormy ones. We picked the apples by hand, and did not pour them from one basket to another without putting soft hay or oat straw between them. While pouring them we put straw on the floor of the room in which they were stored; there was also straw put on the bottom of each basket, and on the bottom of the cart we carried them in; all this was done to keep them from bruising. After they were all housed, we set to work to sort them, rejecting all which had any defects, and if damp, wiping off the moisture. We next took each apple and rolled it in coarse clean paper, any soft paper will do—the paper I bought was common wrapping paper, straw paper will answer. The paper had this effect—it keeps the apples from rubbing each other, and keeps them at a certain degree of moisture, not allowing them to evaporate or receive damp. In the bottom, and around the sides of the barrels, a small quantity of straw was placed, and the apples laid in, one at a time, and as close to each other as they possibly could be, without jamming them. When the barrel was filled, a little more straw was put on the top, and the head of the barrel put in, with an inside lining hoop, to keep the head from being knocked in, by accident; there was besides a lining hoop put in the bottom head of the barrel, before I commenced packing. These apples were put up to order, and were to go to Sheffield, in England. After taking all these precautions, I wrote a direction to this effect:

"These barrels of apples are not to be rolled or tumbled about; if carted, or sent any way by land, something is to be put on the floor of the cart or wagon, so as to keep them from being bruised, rattled, or jolted."

The apples when packed in this way, were tight in the barrels, and could not be made to rattle with common usage. M. C. W., who ordered them, informed me that they arrived at the destined place, and were all sound to an apple, and much admired by the consignee for their preservation and manner of putting up. I took the lesson from seeing the oranges and lemons which arrive here from Spain and Portugal, packed in the same manner.

Those apples which have a close tight skin, will keep the best for the greatest length of time. Of this kind are the Newtown pippin, the Lady apple, the Russet: besides, there is the real Rhode Island Greening, which may be kept until the May of the next year.

If the precautions which I have laid down are strictly attended to, any of these may be sent to England as well as the pippin; but the greening is not so good an apple to keep. People may talk as much as they have a mind to about the heat and damp of ships, and so on, being the cause of the apples rotting; but who could expect that an apple, or any other fruit or vegetable could be kept from it, if jammed or bruised constantly.—*Farmer & Mechanic.*

Agricultural Fairs.

We would invite the attention of some of our farmers to the following remarks of the Tribune. Strangers sometimes perceive our errors more quickly than we ourselves do, and their hints are worthy of all respect.—Ed.

Auburn, Wednesday, Sept. 16th, 1846.

This is the great day of the Fair, and a brighter, pleasanter, was never enjoyed by mortals. The cloudless sky and the fresh green earth harmonize in producing rare external beauty and cheerfulness; the showers of night before last, have cooled the atmosphere just sufficiently; the people of central and western New York have assembled by tens of thousands, and still every train, every thoroughfare teems with hundreds more pouring in. Never did nature

and man more cordially concur in giving zest to a popular holiday.

I have been over the grounds, of course, seeing much to interest, and but for the enormous multitude gathered, which seems to me unparalleled at any former Fair, I should have seen much more. I could say something of the animals here exhibited, but believing Col. Skinner can speak of them to better purpose, I leave them to him. For the present, I will proffer a few suggestions on the influences and uses of these annual fairs, or rather a few thoughts which this one has elicited.

Mental indolence is the chief danger of the farmer's condition. It is possible to exist in his vocation with very little thought. Ploughing this year and next the fields that were ploughed, perhaps by his father, thirty or forty years ago, and harvesting therefrom, substantially, the same grains and vegetables, the farmer is in danger of falling into the habit of doing just as his father did, and for the reason that his father did it. The old round of crops, the old modes of culture, the old implements, even the old smoky and fuel-wasting fire-place, are too often clung to, because the farmer is hardly aware that newer and better means to the same ends have been devised and adopted. It seems easier to do the old things in the old way, than to incur the expense and trouble of changing for the better, even if aware of its existence.

The moral of the fair is improvement. Fifty thousand farmers and farmers' sons, with ten thousand farmers' wives and daughters, assemble once a year to witness an exhibition of the choicest products of their calling in our State. He who has the counterpart of Pharaoh's lean kine, finds at the Fair the noblest display of neat cattle ever seen; so of horses, sheep, swine, &c. Of fruits and grains, there is like abundance of the best. Is it possible that he who has drudged on contented with ten to twenty bushels of grain to the acre, perhaps with two or three varieties of ordinary fruit, perhaps with little or none, should be content to go on in that way? When he sees, as he may here, squashes weighing 146 pounds each—five that grew on one vine weighing over 500 pounds—can he go home satisfied to grow those of a tea-kettle size only? When he sees that other farmers have a profusion of pears, peaches, grapes, quinces, &c., from a few acres of land, will he jog on with his orchard of middling apple trees only? It seems hardly possible that one farmer, who ever thinks at all, can go away from the State Fair without resolving to be a better farmer thereafter; without feeling a truer pride in his calling, and a firmer resolution to improve and excel in it.

But this is not all. The farmer is here brought in contact with all that has recently been done in the other useful arts in aid of his own calling. Here is an endless variety of agricultural implements—fanning mills, cradles, scythes, forks, hoes, &c. &c.; as also household utensils, stoves, ovens, kitchen-ware, &c. There are not less than a dozen newly patented stoves alone, some of them valuable improvements on those exhibited last year. Everything invites to comparison, to reflection, and thence to improvement. In the plough alone, the improvements of the last few years have secured the ploughing of four acres with the labour and power formerly required for three. And the end, doubtless, is not yet. One such Fair as this is worth more to the people of a State than a dozen "glorious victories" in the field of human slaughter.—*New York Tribune.*

The Poplar—the Tulip-bearing Liriodendron.

Liriodendron tulipifera.

Of all the deciduous trees of North America, the Tulip-tree, next to the Sycamore, (Platanus occidentalis,) attains the amplest dimensions; while the perfect straightness and uniform diameter of the trunk, the more regular distribution of its branches, and the greater richness of its foliage and flowers, give it a decided superiority over that tree, and entitle it to be considered one of the most magnificent productions of the temperate zones. It usually attains a height of sixty or eighty feet, with a diameter varying from eighteen inches to three feet; although, in favourable localities, it has been known to arrive at a height of one hundred and twenty to one hundred and forty feet, with a diameter of more than seven feet. The bark of the trunk, till it exceeds seven or eight inches in diameter, is smooth and even; but afterwards it begins to crack, and the depth of the furrows is in proportion to the size and age of the tree.

The southern extremity of Lake Champlain, according to Michaux, may be considered in its natural distribution, as the northern, and the river Connecticut as the eastern limit of this tree. It is only westerly of the Hudson, and southerly of the forty-third degree of latitude, that it is frequently met with, and fully developed. It is multiplied in the middle States, in the upper parts of Carolina and Georgia, and still more abundantly in the Western States, particularly

in Kentucky, where it displays its most powerful vegetation. Its comparative rareness in the maritime parts of the Carolinas and of Georgia, in the Floridas, and in lower Louisiana, is owing less to the heat of summer than to the nature of the soil, which, in some parts, is too dry, as in the pine-barrens, and in others too wet, as in the swamps which border the rivers. It is commonly found mingled with other trees, such as the hickories, the black-walnut, and butternut, the Kentucky coffee-tree, (Gymnocladus canadensis,) and the wild cherry-tree; but it sometimes constitutes, alone, considerable tracts of the forest, as was observed by the elder Michaux, on the road from Beardstone to Louisville, in Kentucky. The artificial geography of this tree may be said to embrace the middle region of Europe, from Berlin and Warsaw, on the north, to the shores of the Mediterranean and Naples, on the south; Ireland on the west, and Crimea on the east. It is successfully cultivated along the maritime parts of the United States, from Newburyport, in Massachusetts, to St. Mary's, in Georgia.

The period at which the tulip-tree was first introduced into England, is uncertain. The honour is said to have been conferred on the Earl of Norfolk, as far back as 1663. It is certain that it was cultivated by Dr. Henry Compton, at Fulham, in 1688, at which time it was wholly unknown as a timber-tree. According to Miller, Mr. Darley, at Hoxton, and Mr. Fairchild, were the first who raised this tree from seeds; and from their nurseries it is probable that the numerous old trees which are spread all over Britain were procured. The oldest tree in England, estimated at over one hundred and fifty years of age, is at Fulham palace. It is about fifty feet high, and its trunk, at one foot from the ground, is three feet in diameter. The largest tree in Britain is in Somersetshire, at Hestercombe, which is one hundred feet in height, with a trunk three feet in diameter, and ripens seeds every year.

The first notice which we have of the tulip-tree on the continent, is in the "Catalogue of the Leyden Garden," published in 1731. From the number of these trees existing in France, the south of Germany, and Italy, there can be little doubt it spread as rapidly in those countries as it did in Britain. Public avenues are planted of it in Italy, and as far north as Strasburg and Mentz. It stands the open air at Vienna, and attains a large size there; but it will not endure the climate north of Warsaw, nor Moscow, without protection. In the grounds of the palace of Läcken, near Brussels, there is a tree which has a clear stem three feet in diameter, with a compact globular head. When Läcken belonged to France, the palace was occupied by the Empress Josephine, who brought her gardener from Paris; and the poor man, while he was gathering seeds from this tree, fell from it, and broke his neck. At Schwöbber, near Hanover, there is growing, in alluvial soil, near water, a tree more than one hundred and twenty years old, and eighty feet in height, with a trunk two feet in diameter, and an ambitus of thirty feet. In Italy, the tulip-tree attains a height of seventy or eighty feet, flowers freely, and ripens seeds every year.

The elder Michaux measured a tulip-tree, three and a half miles from Louisville, Kentucky, which was twenty-two feet and a half in circumference five feet from the ground, and from one hundred and twenty to one hundred and forty feet in height. In 1842, there was felled from the estate of Mr. John Lewis, in Llangollan, Kentucky, a tulip-tree eight feet in diameter near the ground, and five feet in diameter seventy-five feet above. The trunk was perfectly straight and sound, and was sawed into boards of common lengths.

At Green Point, Bushwick, near New York, on the estate of Mr. N. Bliss, there is a tulip-tree which has a circumference of twenty-one feet at three feet above the ground, and a height of seventy feet.

In 1807, there existed a tulip-tree in Hamilton, Adams county, Pennsylvania, noticed by John Pearson in a communication to Dr. James Mease, in the "Memoirs of the Philadelphia Society for promoting Agriculture," for that year, which had a circumference of thirty-six feet, with a trunk thirty or forty feet to the forks, a large head, and to all appearances, perfectly sound. In the same work he mentions another tree as growing near the Virginia head of the river Roanoake, which was thirty-nine feet in circumference four feet from the ground, apparently sound, and about forty feet to the forks.—*Browne's Trees of America.*

Experiments with the Pear upon the Apple.

The following account of experiments made by T. S. Humrickhouse, of Cashocton, Ohio, we take from the Magazine of Horticulture, a work we frequently find ourselves extracting from, and as we trust to the benefit of our readers. It is not successful experiments alone that are available to the practical farmer or gardener: we want as well to be advised of failures, as of attempts that have succeeded in our hands. Thus time, labour and expense may be avoided: and

thus we may be stimulated to greater care than others, and hope that this extra care may be rewarded with superior success.—Dd.

In the spring of 1838, I commenced a series of trials of the pear upon the apple, in the nursery, by the method of root-grafting, which were continued up to 1844. The roots employed by me were of thrifty seedlings two years old; and were from half an inch to three-quarters of an inch, or perhaps one inch in diameter. They were pulled up from the seedling bed shortly before they were wanted; and at the time of grafting, were cut into suitable lengths of four to six inches, with more or less side and fibrous roots as might happen. The scions generally contained three buds or eyes, and might be two to four inches in length, depending upon the distance asunder of the buds or eyes. After the operation was performed, and they were planted in the nursery rows, the top of the stock would be three-quarters of an inch to one inch and a half below the surface. The soil in which they were set was a rich sandy loam. I am thus particular, in order that the means may be afforded, if desirable, of forming an estimate of the probable influence the attendant circumstances may have had upon the results.

The number grafted and set out, at the first trial in 1838, was eight grafts, about one half of which grew the first season, but died the second and third.

The number grafted and set out at the second trial in 1839, was seventy-six, of which nine were a seedling variety, twenty Pound, one Catharine, seven Green Chissel, two Seckel, three Easter Bergamot, eight Doyenné Blanc, nine St. Germain. Of the whole number, about one half grew the first season. The Doyenné Blanc and St. Germain failed entirely. One graft of Easter Bergamot grew, appeared thrifty, but died suddenly the latter part of the second summer. Two of the Green Chissel grew—one blossomed from top to bottom in the nursery the third spring, and died the same season; the other died in transplanting. The two Seckel grew; one I have lost sight of; the other I gave to Mr. William K. Johnson of this place, who planted it in 1842 against the south wall of his house, which is of brick, and trained it by the fan method. The situation did not suit it. It blossomed every year, but the heat from the wall always forced it into bloom so early in the season as to be always killed by frosts. In November last, Mr. Johnson removed it to the garden. In the spring it blossomed at the usual time, and has perfected two pears this season. The fruits thus produced were more than double the usual size of the Seckel, of a pale green colour, having the appearance of being covered with a faint whitish bloom, and were perfectly melting, exceedingly sweet, juicy, and fine grained, without any grittiness whatever. Their greatly increased size and altered appearance, from what the Seckel usually is, induced the Hon. James Mathews, who is an amateur, and who saw the fruit while yet upon the tree, to doubt their being that variety; and it is proper to state, that the tree from which the scion was taken, was procured from a nursery at Wooster, and died before fruiting. Having seen, however, what Mr. Ernst has somewhere stated of the increased size, &c., of the Seckel when grafted on the apple, I do not doubt, in this instance, its being true to name. The tree at Mr. Johnson's stands in a somewhat shaded situation, is healthy, retains the fan shape given it by him, is a dwarf in habit, being now about five feet high and as many wide, and remains upon the apple root without having thrown out any of its own. Of the other trees grafted at this time, some, the second and third seasons of their growth, became so dwarfed and stunted as finally to die. Four or five of the residue were, in 1842, transferred to the orchard, and are still alive in different states of thriftiness. I have not noticed that any of them have made roots of their own, and think they have not. The orchard to which they were taken is some miles from town, and hence they have not received from me the attention they otherwise would. How they may eventually succeed remains to be seen.

In 1840, I tried some scions sent me by Mr. William Kenrick. The number set was forty-eight, as follows:—five Beurre d'Aremberg, four Williams's Bon Chrétien, six Pound, four Beurré Diel, four Capiaumont of Boston, five Bezi Vaet, four Easter Beurré, four Duchesse d'Angouleme, four Napoleon, three Urbaniste, five Passe Colmar. Of these, Beurré d'Aremberg, Beurré Diel, Duchesse d'Angouleme and Napoleon failed entirely. Two of the Passe Colmar grew, and after remaining stationary, or nearly so, during their second and third seasons, at length threw out roots of their own, on which they have now become established, the apple root having entirely rotted away and disappeared from them. They are now thrifty trees. One only of the Capiaumont grew. It made about the usual growth the first season, and afterwards remained stationary until the present season. It now appears to be establishing itself upon its own roots, and has this year thrown up a thrifty shoot. One only of the Urbaniste

grew. It also remained stationary until last season, when it formed roots of its own, upon which it is now established and doing well. Four Easter Beurrés grew. The two largest then apparently thrifty, were removed last spring a year ago to the orchard and died. The two left in the nursery are low—not more than two feet high—scraggy, and have made no new wood the last three years, but have blossomed each of those years. They all remained upon the apple roots. Two Bezi Vaets grew. One remaining in the nursery, has established itself upon its own roots, and is a fine thrifty tree. It, too, did not grow much till the two past seasons, but both the past seasons it has grown as rapidly as any tree that has ever fallen under my observation. The other Bezi Vaet was removed last spring a year ago, to a grass plat in front of my house. The top died down within two feet of the ground, and it has made no new growth of wood since transplanted, though it has now two pears upon it which appear to be swelling out finely. It remains upon the apple root. Two of the Williams's Bon Chrétien grew, and have done the best of any remaining upon the apple, as they still appear to do. One of them was removed a year ago, to the yard, and this year fruited. But one pear remained to ripen upon the tree, which was much smaller than it should be, and deficient in flavor. The other tree, still in the nursery, is thrifty, and produced this season a dozen or more pears of fine appearance, which were stolen by the boys about the last of July. Neither of these two trees has ever exhibited any appearance of being dwarfed by the stocks, but on the contrary, promise to make standard trees.

In 1841 I grafted and set out in the same way, fifty-nine trees, of which eight were Green Chissel, fourteen Easter Beurré, and thirty-seven Seckel. The Green Chissel all failed. Five or six of the Easter Beurré grew, but have done nothing since the first and second seasons. They are, to all appearance, of no use whatever. About three-fourths of the Seckel grew, and of these about one half are thrifty, and give promise of doing well. Some of them have been given away by me, and others transplanted.

In 1842 I grafted and set out in the same way, one hundred and seventeen, of seven varieties, about one-third of which grew. Some varieties failed entirely. Of those that grew, the Pound, Easter Beurré, and Williams's Bon Chrétien appear to do the best, and about one-third of them are doing tolerably well. I have not ascertained that any of these have as yet made roots of their own, but think they have not. Last year I removed one, a Salviati, to the yard. It grew the first season after transplanting. This year it again leaved out, but is now dead. It remained upon the apple root.

The number grafted and set out in 1843, was seventy-two, of which thirty-seven were Williams's Bon Chrétien, and thirty-five Easter Beurré. About one half of them grew. They appear to have done better, upon the whole, than any former trial, and a number of them are now of fine size for transplanting to the orchard. I cannot say that any of them have made roots of their own. Since 1843, I have not grafted any pears upon the apple.

You have now before you my experiments and their results, as far as they are yet apparent. Each one is left to draw his own conclusions from them. For myself, I do not regard them as complete enough to lay down anything as absolutely determined by them. It will not, however, be going too far to say that their tendency is strongly to show, that root-grafting the pear upon the apple cannot be relied upon by nurserymen for propagating the pear; unless some means be found by which a much greater proportion, in any given number, can be made to grow and establish themselves upon their own roots than the foregoing experiments indicate. Whether this is attainable or not, future trials must determine. I would suggest, in order thereto, that the scions to be used should be six to seven inches in length, and that when planted in the nursery, the top of the stock should be three to five inches under the surface of the soil.

For the Farmers' Cabinet.

Lime for Potatoes.

Mr. Editor,—In your last No., page 92, you recommend lime for potatoes. Having noticed the action of lime on potatoes, I deem it proper to make a few remarks upon the subject. I have noticed that in many instances the disease is worse where lime has been used, than where nothing had been applied: and I will account for it in such a manner as to show you why this is so. Lime is much used by the potatoe when it can get it, for the formation of the tops. Where much lime is applied on potatoes they have very large tops. These large tops open so many more mouths to suck in carbonic acid, which, if the tops were small, would not be the case. This extra quantity of carbonic acid, so absorbed by the large tops, insures the disease, when, perhaps, the small tops, with their smaller means of abeorption, would not be able to take in enough to kill the plant and disease the root. I have seen

this during the past season. A potatoe grower in this neighbourhood, placed a small quantity of old lime—or carbonate of lime—on his potatoes at the time of planting; this carbonate of lime was just sufficient to enable the plant to develope the tops finely. The large tops absorbed large quantities of carbonic acid, and death and decay followed in both top and root. Another potatoe grower put nothing on his patch—as a consequence the tops were small, and not taking in much carbonic acid, they stood until quite late, when they too were killed, but the roots were saved.

It is difficult to apply lime to the potatoe with the certainty of its proving effectual in preventing the rot; because, in the first place, the tops use much, if not all of it, for increasing the size of the tops, thus exposing the plant the more to the disease, instead of protecting it from that evil; and in the second place, if there be more lime used than the plant can appropriate to the tops, the remainder becomes highly charged with carbonic acid early in the season, and holds it with such tenacity that the plant cannot get the alkaline principle without getting the acid too; thus preventing the alkaline principle from neutralizing the carbonic acid, which is destroying it.

The best way I know of to apply lime to potatoes, is to take old lime which has been air slacked, and apply about a gill to each hill of potatoes at the time of planting. In the fall, when the potatoes are dying with the disease, put on, every few mornings, when the dew is on, *fresh water slacked lime.* It should be slacked on the very morning it is used, because the longer it is exposed to the air the more carbonic acid is absorbed by it, and its useful qualities decreased. Fresh slacked lime is excellent to put on potatoes after they are dug up, when they are diseased.

But the best alkali for potatoes is potash, as contained in wood ashes. The tubers seem to prefer this alkali to lime, while the tops in a great measure prefer lime to potash. These ashes may be scattered over the potatoe field about the time the young tubers are beginning to form, and every few mornings, when the tops show signs of the disease. I have seen, with unbounded pleasure, the highly useful effects of this valuable fertilizer. Much reliance should be placed on the fall application, because much of the alkaline principle is apt to be washed away, either down deep in the ground, below the reach of the roots, or to another part of the field, while it should remain near the plant.

Ashes will abundantly repay considerable cost in procuring and applying them, and no potatoe grower should think of dispensing with their use. Dr. Lee, of New York, who was employed a year or two since by the New York State Agricultural Society, to go to each county in the State and deliver lectures on Agriculture and its kindred sciences, wrote several letters during his tour to the editor of the Cultivator. In one of these letters, written from Smithville, Chenango county, N. Y., under date of July 15th, 1845, he says: "A sugar maple, a grape vine, an apple tree, and a potatoe plant, need a soil that abounds in potash. Take from your field 200 bushels of potatoes this fall, and you will remove from it sixty-three pounds of this mineral. One bushel of ashes—by those that have used them—are said to make ten extra bushels of potatoes."

You may now count the cost of the ashes and the value of the potatoes, and be enabled to judge of their importance. They would always produce well when the disease is prevalent, and if the ashes be good and applied in the fall, and the disease great, I have but little doubt that they would produce even more than is mentioned above. I cannot too strongly recommend their use. Let every potatoe grower build himself a nice ash-house, of such material as to resist fire, and let him preserve and use all the wood ashes he can procure, until he has sufficient for his purpose.

CHEMICO.

Wilkesbarre, Oct. 30th, 1846.

Address of Dr. William Darlington, &c.

MR. PRESIDENT: Ladies and Gentlemen of the Chester County Horticultural Society:—The committee appointed to procure a competent person to address you, on this occasion, have, as you perceive, been rather unsuccessful in their efforts. It was their wish and intention to provide a discourse worthy of the subject in which you take so lively an interest; but failing in that, they have to solicit your indulgence for the hasty *substitute* now about to be offered. The duty of preparing that substitute, having been unexpectedly, and at a late hour, assigned to me,—I should certainly have shrunk from the task, had I not felt that it would seem most ungracious in a professed admirer of plants, to refuse a cooperation, in any capacity, with those who have associated expressly to promote the culture of favourite *Fruits* and *Flowers.* The *theme*, moreover, is a rich and prolific one; and he who cannot be in some degree

degree inspired by the contemplation of its charms, must be

* * "duller than the fat weed
* * * on Lethe wharf."

I shall therefore venture to trespass on your good nature, by submitting a few desultory remarks which have occurred to me, in reference to the objects of this Society.

Horticulture, in the comprehensive sense in which the term is now understood, is unquestionably one of the most elegant and refined—as it is one of the most interesting—of earthly pursuits. It has for its especial objects, the production of the choicest fruits and vegetables—the training of the most ornamental trees and shrubbery—the culture of the sweetest and most beautiful flowers—and the arrangement of the whole in accordance with the principles of a refined, disciplined, unsophisticated taste. It involves, in short, all that is connected with comfort and beauty around our dwellings—all that can gratify the palate, delight the eye, or regale the most fastidious of the senses. As an *enlightened Agriculture* indicates a superior stage of civilization, in the march of human society—blending, as it does, scientific illustration with every utilitarian process,—so a *perfect Horticulture* may be regarded as the crowning attainment of an intellectual and polished people. To borrow a simile from one of the noblest of the arts,—the employments of man in the successive stages of his advancement, may be compared to the principal orders of ancient architecture. In the savage or *hunter* state, we find the rude unpolished strength of the *Tuscan* order. The same rude vigor, with the higher finish and symmetry of the *Doric*, is seen in the *pastoral* stage. The combined strength, stateliness, and graceful tournure, of the *Ionic* order, may be considered as the type of the enlightened *Agricultural* stage; while the elegant science of *Horticulture*—the employment and the recreation of man in his most elevated condition—may be regarded as the finishing accomplishment of society—the *Corinthian* order of human attainments and pursuits. Dedicated to the culture and improvement of the choicest productions of the vegetable creation, it is a pursuit which requires the united qualifications of practical dexterity and scientific skill—with a correct perception of the appropriate and beautiful. And while it thus exacts and promotes the highest mental accomplishments, it at the same time represses the more sordid or grovelling passions, and cherishes the purer aspirations of the human heart. What can be more propitious to elevation of thought, or more congenial with purity of mind—when rightly considered—than the varied attractions of an elegant garden? It is the place of all others, of a temporal character, best fitted to refine the feelings and sublimate the affections. *A garden* was the spot selected by Divine Wisdom as the appropriate residence of man, while in the state of primeval innocence: and if ever, on this earth, man should so far improve as to qualify himself for a *Paradise regained*, we may fairly infer that the scene of his terrestrial bliss will again be a perfect and beautiful *garden*.

That the habitual association with interesting plants and flowers exerts a salutary influence on the human character, is a truth universally felt and understood. No one ever dreams of any possibility of mistake, in estimating the disposition of those who delight in gardens, rural walks and arbours, and the culture of elegant shade trees and shrubbery. Who ever anticipated boorish rudeness, or met with incivility, among the enthusiastic votaries of *Flora?* Was it ever known, that a rural residence, tastefully planned and appropriately adorned with floral beauties, was not the abode of refinement and intelligence? Even the scanty display of blossoms in a window—or the careful training of a honey suckle round a cottage door—is an unmistakeable evidence of gentle spirits and an improved humanity within. There *may*, possibly, be natures so gross, as to be incapable of perceiving the beauties of the vegetable creation, and altogether inaccessible to the influences of genuine taste,—as it is *said*, there are persons insensible to the charms of the sweetest music. But I can only imagine the existence of such unfinished specimens of our kind, as the rare *exceptions*, which logicians say are the strongest proofs of the *general rule*. They must, indeed, be the veriest *clods* that ever fell, untempered, from *auld Nature's 'prentice han'*. Shakspeare, as you know, tells us—

> "The man that hath no music in himself,
> Nor is not mov'd with concord of sweet sounds,
> Is fit for treasons, stratagems and spoils."

Now, if *such* be the character of the man who is so unfortunate in relation to the pleasures of a *single sense*, what shall we say of him who cannot appreciate the delights of a rich and beauteous *garden?* delights which appeal so directly to *each* of the senses—and minister so exquisitely to *all the five!* *I* should say, he was not fit even for "*spoils*,"—which, I believe, is the lowest qualification recognized at the present

day: and I would heartily concur in the judgment pronounced by the bard:

"*Let no such man be trusted.*"

Such, then, being the nature, the influences and the tendencies of *Horticulture*, in the comprehensive and just acceptation of the term, it is an occasion of sincere congratulation, to see the citizens of this ancient county awakening to a perception of its benefits, and associating to promote its advancement. Having, by their skill and industry, made the *agriculture of Chester* the admiration of all observers, it next becomes an urgent duty to make their gardens, their orchards, and the lawns appurtenant to their dwellings, correspond with the beauty and excellence of their farms. The time, indeed, has fully arrived, when such a movement is due to our character as a community: for candor will oblige us to confess, that while our *farming* has been managed with commendable skill and neatness—we have been sadly neglectful of our *Horticulture*—that elegant department of the profession, which is the crowning attainment of an accomplished agricultural people. The true science of gardening does not come by intuition; but is to be acquired by a rational and studious attention to the operation of established laws. The art of increasing the size and improving the quality of vegetable products,—to be completely successful—demands a close observation of natural phenomena, and an intimate acquaintance with the physiology of plants. The influence of *culture* and *soil* upon vegetable development, is a most interesting problem, which has not yet been thoroughly solved, and is generally, in fact, but little understood.

Those plants which have been long under cultivation, are continually undergoing modifications in their tissues, and producing variations of form, dimensions, texture, colour, or flavor. This phenomenon is especially remarkable in some old favourites, which have been carefully nursed for ages; such as the *Rose* and the *Tulip*, among flowers,—and the *Pear*, the *Apple*, and the *Peach*, among fruits: and it is by watching this process in the vegetable economy—by a skilful selection and management of the *best varieties* thus produced, that the apparently accidental features and qualities are *fixed*, or become permanent; establishing what are called *races*, in the language of Botany. It is in this way that the countless sorts of our choice fruits and vegetables have been obtained. They are all mere progressive developments or modifications of a few wild unpalatable *originals*, which have been gradually tempered and meliorated by the influences of a kindly nourishing soil, a propitious situation, and a continued skilful treatment. The sagacious gardener avails himself of those occasional developments, and by a careful culture, perpetuates beautiful forms or valuable qualities, which otherwise would be as transient as the individual specimens in which they occur.

If an excellent variety happen in a woody perennial—such as a *fruit tree*,—the original *tree*—and of course the identical sort of *fruit* may be multiplied indefinitely, by the process of *budding* or *engrafting*. If it occur in a herbaceous or annual plant, it may often be perpetuated as a distinct sort, or *race*, by a proper attention to the culture, and a careful selection of the fairest seeds for planting. This truth is constantly exemplified in the preservation of distinct varieties or races of cultivated *grains*—such as *bearded* and *beardless wheat*, white wheat, red chaff, &c.,—and also in numerous *garden vegetables*, in which the peculiarities are fixed, and transmissible to future crops by the *seeds*. The character of the best varieties yet known, may doubtless be still further improved by the continued influence of appropriate management; as is evinced by the specimens annually exhibited by the various Horticultural societies.

That these important facts and principles have been but little heeded or considered by a portion of our people, is too obvious to be denied. We are bound in honesty to admit, that while our agricultural fellow citizens may justly pride themselves on the condition and products of their *fields*, numbers of them have been utterly neglectful of their *orchards* and *gardens;* and have discovered no manner of taste in the arrangements around their dwellings. There are yet too many instances in Chester county of tolerably cultivated farms, on which there is scarcely any *other* visible evidence of improvement;—no horticulture—except a paltry, weedy, neglected kitchen garden; no well-selected orchard of fruit trees; no green sward, nor clustering flowers, nor ornamental shrubbery, around the farm-house; not even a friendly shade-tree, to protect the dwelling from the glare of the summer's sun. Too often we may see the residence of a substantial farmer naked and broiling, as it were, in one of his open treeless fields,—without so much as a palisade to keep the stock at a respectful distance from his doors—the persecuted cattle contending hopelessly against a swarm of flies under the windows of his sitting-room, and crowding, as to a place of refuge, into the narrow shadow afforded by the building itself; while the

unringed swine are either wallowing in the drain of the kitchen, or wantonly rooting up the footway at the very entrance to his domicil!

How repugnant is such a scene to every idea of refinement and comfort! How offensive to every corporeal sense—as well as to every sense of moral fitness and propriety! What can be expected from a family, raised under circumstances so unpropitious to the formation of a correct taste, or the cultivation of the finer feelings? The children so brought up, may, indeed, be fitted to migrate from such a home, and be prepared to exchange it, without regret, for the rude accommodations of our wild frontiers: but they can have no conception of the sentiments inspired by lovely scenery around the paternal mansion. They can know nothing of the charms and abiding moral influences of a pleasant homestead upon the susceptible minds of the young. Their early years being thus destitute, they will necessarily be strangers to those precious associations, by which memory renews the delights of a happy childhood, and links the dreamy enjoyments of youth with the sober realities of after life. But, at the present day, there is really no excuse for any such culpable improvidence—such boorish negligence of all that can adorn a country residence, or afford the comforts of a rural home.

There is no necessity in this climate and country, for any family to be destitute of the luxuries derived from the garden and the orchard; and consequently no apology can be offered for those sluggards, who neglect to plant for themselves—and yet, in the season of fruits, have the assurance recklessly to trespass upon their more provident neighbours. Such persons do not merely violate good manners by their rudeness; they train up those about them with exceedingly loose notions of moral honesty. It is high time there was a reformation wrought among such people; and I firmly believe there can be no agency devised so efficacious in promoting that reform, as institutions of the kind which I have now the honour to address. They propose, by a general co-operation, to make the culture of vegetable delicacies so universal and so productive, that there shall be neither pretext nor motive for the plundering of orchards and gardens. They demonstrate the practicability of their generous purpose, by the most encouraging *examples;* and good examples, happily, are sometimes *contagious*, as well as those which are evil. We may, therefore, reasonably hope to see a decisive movement among our people in reference to gardening and the cultivation of choice fruit. I hold that every farmer, great and small, every occupant of soil, whether he reckon by acres or by perches, is bound to plant and provide the products of the orchard and garden, in justice to his neighbours, as well as to his own family: and they can *all* perform that obvious duty, if they choose. There is nothing wanting to effect that desirable object but the *will;* and a correct public sentiment would avail much in controlling and regulating the volitions of the inconsiderate. There is scarcely a householder in the community, who does not occupy a lot sufficient for a garden, or who has not room for a few select fruit trees. It is a mere idle pretext, for any one to allege that he has no *space*, nor *leisure*, for their cultivation. I doubt whether there be a tenement in the land—there surely need not be—which has not ground enough annexed to admit, for example, a Peach tree, a May-duke cherry, an Apricot, a Pear tree, and a Grape vine. These are the fruits so universally and eagerly run after in their season; and one or more of these popular favourites could certainly be accommodated about the humblest cottage in Chester county. It will never do, therefore, for those who can find time to rob the orchards of their neighbours, to pretend that they have not leisure to plant a tree or two at their own doors. Such unworthy practices and dishonest subterfuges, should be promptly shamed, or frowned out of existence.

I have thought I could already perceive, in our vicinity, evidences of a growing disposition to cultivate both useful and ornamental trees and shrubbery. Unquestionably, as the exhibition before us abundantly demonstrates, there has been a decided advance in the production of choice garden vegetables,—and in the taste for cultivating rare and beautiful flowers. For this improvement, we have been chiefly indebted to the labours and example of the spirited pioneers, who prepared the way for the establishment of this Society. These public benefactors have presented us with new views of what may be done for a community, by an enlightened Horticulture: and were it not for the awkwardness of personal allusions, in the presence of the parties, I should be tempted to notice more explicitly, than I shall now venture to do, the commendable zeal of our worthy President—and the exemplary efforts of a Rutter and a Rivinus—a Townsend and a Garrett—a Hoopes, a Taylor, a M'Ilvain, a Steele, a Hartman, a Strode, an Embree, and a Stromberg—with other valuable co-labourers in

the noble cause.* Not satisfied with showing us, by their several examples, what can be done by individual enterprize in behalf of horticulture, they sought to concentrate the energies of its friends in a united effort for its advancement. They established this Institution,—and invited the co-operation of every one who feels an interest in its laudable objects. In this movement, too—as always when benefits are to be conferred upon our race—they have been happily sustained by the countenance and participation of the gentler sex.

With such purposes, and under such auspices, we cannot but anticipate the most satisfactory results. As already remarked, the agency of the Society, in extending information, and awakening a perception of the beautiful, cannot fail to be salutary: for the example of a pure taste has an irresistible influence upon all minds which are not utterly insensible to the beauties of nature and art.

As the classic *Portico* which adorns our village, will be a sure guarantee against the erection of any uncouth pile in its vicinity, —so will the display of true taste, and the exhibition of practical skill, in Horticulture, necessarily influence all who have the slightest aptitude for improvement; aud will eventually banish from amongst us every vestige of barbarism, in the decoration of our grounds and the management of our gardens.

The great charm of the scenery, so universally felt by those who visit our mother country, consists in the high state of its agriculture, and the admirable fitness, and symmetry, in the arrangements of the gardens, and of the lawns, trees, and shrubbery, around the dwellings. These are every way worthy of our studious attention—and present the purest models for our instruction, in the art of embellishing rural residences.

Washington Irving—whose judgment in the premises will scarcely be questioned—remarks, that "the taste of the English in the cultivation of land, and in what is called landscape gardening, is unrivalled. They have studied nature intently, and discovered an exquisite sense of her beautiful forms and harmonious combinations.—Those charms which in other countries she lavishes in wild solitudes, are here assembled around the the haunts of domestic life. They seem to have caught her coy and furtive graces, and spread them like witchery about their rural abodes."

Why should not *we*, also, commence the capture and domestication of those "coy and furtive graces," which a bountiful nature—or rather, a beneficent Providence—has lavished upon our own country,—and which haunt every glen and valley, and hill-side, and mountain top, throughout our favoured land?

To aid us in this enterprise, we have the elegant and instructive works of Loudon, upon the art as practised in the old world,—and of our accomplished countryman, Downing, upon the theory and practice of landscape gardening, adapted to North America. By the gentleman last named, we have been supplied with a scientific treatise upon the fruits and fruit trees of our country—as well as with instruction in the best modes of laying out and adorning our grounds: and he is moreover, at this time, publishing a highly interesting monthly Magazine, entitled "The Horticulturist, *and Journal of Rural Art and Rural Taste.*"* Conducted by such guides—and profiting by the sagacious experience of all nations, if we are docile, attentive, and persevering, we can scarcely fail to accomplish the objects of our Association. We may hope to be efficiently instrumental in arousing the public mind, throughout our ancient bailiwick, to a just sense of the importance and value of a perfect Horculture. A French king, we are told, acquired some celebrity by uttering the benevolent wish, that he could supply a chicken to the dinner-pot of each of his subjects. That was a mere ebullition of kind feeling, on the part of royalty,—and really added nothing to the meagre dinners of the French people. But the operations and tendencies of *Societies such as ours*, are calculated to effect something more than mere good wishes. An improved Horticulture will not only fill the dinner-pots with all sorts of nutritious esculents—but it will load the tables of all who attend to its teachings, with every variety of delightful fruits. The majesty of

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* In any notice of the public spirited few, who led the way in introducing an improved Horticulture among us, it would be inexcusable not to mention the laudable example of the Misses Bennett, of this Borough—who were among the foremost in cultivating vegetables of a superior quality, and showing how our market may be supplied with the choicest products of the garden.

* To instruct us in the management of the flower and kitchen garden, we have "*The American Gardeners' Calendar*," by the late Bernard M'Mahon—one of the pioneers, among us, in the good work of teaching Horticulture. Although his book was published forty years ago, it is, in my opinion, about as well adapted to our wants and as replete with good practical common sense—as any thing of the kind which has yet appeared in our country.

France indulged in a vain aspiration: but *we* look to substantial benefits—and to the certain means of conferring them.

By well directed efforts, we may also be the means of causing those beautiful visions to be yet realized, which were long since entertained, in Chester county, by a few choice spirits within her borders. At an early day—when the perceptive faculties of the masses were unimproved by education, and blunted by the unavoidable drudgery of a rude agriculture,—our county produced men whose taste and refinement were so far in advance of the times, that they actually dreamt of pleasure grounds, and botanic gardens; and consequently, those strange conceits were very imperfectly appreciated, by their contemporaries. A Botanic Garden was then considered as one of the practical vagaries of an eccentric mind—the embodyment of a monomania—instead of being prized as a nursery of taste, and an instrument of knowledge—a means by which the value of new discoveries, and the practibility of their culture, may be speedily and economically tested, for the information of all. Yet, even in the midst of that intellectual fog, there were *minds*—and honoured be their memory!—whose radiance could illustrate the importance of such institutions,—and whose energies could effect their introduction.

If I mistake not, the *second* garden in this confederated empire of republics, the *first* being also in this state, designed for the culture and distribution of rare and valuable plants, was established at Marshallton, in Chester county; and Humphrey Marshall, its venerable founder, was the author of the first treatise upon our vegetable treasures, that was issued from the American press. His example in founding a Botanic garden, was soon followed by another estimable citizen of the county—the late amiable John Jackson, of London-grove. A third exemplification of rural taste and elegance, was furnished by the brothers, Samuel and Joshua Pierce, of East Marlborough,—who, by their splendid collection of evergreens, and other kindred embellishments, have made their farm one of the most delightful rural residences within this commonwealth.

What those worthy citizens accomplished, from the promptings of their own good taste, when there were few to appreciate, and none to co-operate, may surely be attempted by us, now that the progress of refinement, all around us, not only invites to the performance, but reproves our delay in the undertaking.

Let us resolve, then, to persevere in the good work, until our beautiful science shall have diffused its blessings over this entire community—and all its mysteries and manipulations shall be as familiarly understood, as are the simplest processes of agriculture. Let the acquisition of skill, and a thoroughly disciplined taste, be our constant aim: for we may rely upon it, that fruitful gardens, and embellished farms, will as surely follow those attainments, as the brilliance of day results from the rising of an unclouded sun.

Let us endeavour to hasten the period, when our county shall be as eminent in Horticulture, as in the other departments of rural economy—and when our village shall be known throughout the land, as a favourite seat of science and refinement,—equally distinguished for the intelligence and urbanity of its people—the number and excellence of its scholastic institutions—the rich productiveness and the tasteful elegance of its gardens.

For the Farmers' Cabinet.

Bucks County Agricultural Exhibition.

Mr. Editor,—I was present at the Agricultural Exhibition of the Bucks County Society, held at Newtown, and can truly say, I was never more interested on such an occasion. The committee of arrangement must have been practical men, to minister to the desires and expectations of 3000 spectators, leaving not a wish ungratified.

The stock exhibited was excellent and well placed. Here I saw the best bull of Colostra's get, and no mistake; with all the fine points and delectable handling of his sire, united to the remarkably developed loin and rump of his dam, an imported cow, he may be considered as fine an animal as any in the Union, and ought to be better known. He is a perfect white, with beautifully formed horns, the latter indicative of purity of blood.

The horses were not numerous, but of superior character; amongst which, a two-year old colt, by Mr. Harris's horse Diligence, out of one of his imported mares, bids fair to rival his sire, which will be "glory enough."

The hogs and pigs of the pure white Chester county breed, were splendid, and brought large prices at sale: a sow, the property of Levi Buckman, promising to reach 700 lbs. when fat. The sheep of different breeds and grades were very good. There was a good show of produce and vegetables, with corn-stalks measuring 16 feet 8 inches in height, such as scarcely any other county could reach; the *cultivators* themselves being of the *purest blood*—the old Bucks county class of husbandmen, whose praise

has long been known and acknowledged, as the possessors of a county typical of themselves—a rich and healthy surface, resting on a happy subsoil.

There were few implements on the ground, and the committee awarded their diploma to a plough invented by Mr. Wiggins, *before trial!* which error they will have reason to correct, before their next meeting. As the time for the ploughing match approached, it was astonishing to witness the streams of persons wending their way to the field of trial; showing most conclusively, that this part of our exhibitions is still the most attractive. And although but five ploughs started, it was soon perceived that the spirit of excitement and emulation could not have been augmented by treble that number. The men drew lots for precedence, as customary; but why the committee on ploughing have, in their report, reversed the order, placing the Wiggins plough *first* on the list, although the *last* on the field, and the Prouty and Mears *last*, although No. 2 on the list, we are only left to conjecture. Suffice it to say, however, the committee on ploughing report, "for pulverizing the ground and turning under the stubble, the Prouty and Mears plough was better than any other, going seven inches deep;" thus neutralizing the award of the committee on implements to the Wiggins plough before trial. And they might have added, the Prouty plough, after carrying a furrow two and a half inches deeper and two inches wider, finished her task, leaving the Wiggins plough five furrows to turn.

In conclusion, it is but justice to observe, the ploughman of the Prouty and Mears plough, a coloured man by the name of Samuel Congo, although thrust to the bottom of the list, performed the best work that the writer has witnessed the present season, with every furrow lying "like the plaits of a shirt," thoroughly pulverized from bottom to top, and straight as a bee-line, with a regular depth of seven inches, without the variation of a tenth; it called forth the admiration of the congregated mass of spectators, without a dissenting voice.

J. P.

Philadelphia, October 28th, 1846.

Management of Poultry.

BY SARAH DAKIN.

Hens.—1st. Provide a warm dry shelter for winter.

2nd. Feed with oats, soaked for 12 hours in warm water before feeding.

3rd. Burn clam shells and pound them fine, let them have as many as they can eat, and you may have eggs from January to December.

From 30 hens I have gathered this year 3,522 eggs by the 10th of September, and raised 200 chickens.

I manage my chickens by feeding oats and rye ground, two bushels of oats to one of rye. Keep them in a warm shelter at night.

N. B. To prevent the pip or gaps change the male every year, and your chickens will be healthy.

Management of Turkeys.—1st. Feed the same as hens, and let them hatch their young ones any time after the 20th of May.

2nd. Feed the young ones oats and rye ground, wet with milk curd, and occasionally sprinkle a little powdered clam shell lime with the feed; if cold and wet weather, sprinkle a little black pepper with their food.

3rd. Make warm and dry shelters for them to brood in nights, and keep them from the wet and dew until the sun shines warm.

4th. Feed but little the first twenty-four hours after they are hatched; by this management I can raise nine out of ten.

Be sure and change the tom turkey every year.

Raising Goslins.—1st. Have them hatch as early as the first of May if possible. Make dry, warm places for their nests.

2nd. Feed the young goslins with corn meal, put one tea spoonfull of salt in a pint of meal, wet the feed with milk.

3rd. Let them have access to water in pleasant weather.

4th. Keep them at night in a warm, dry shelter.

By this management I can raise 49 out of 50.

Ducks.—Feed ducks the same as goslins. In this way I have raised fifty-two young ones from two old ducks in one year.—*Poughkeepsie Telegraph.*

The Harvest and the Corn Market.

We take the following extract from the *Kelso Chronicle* of the 18th of Ninth month last. It will be read with interest by grain raisers in this country.—ED.

WE think it a most conclusive fact, that neither in dealers hands, nor in those of the growers, have the stocks of old wheat for many years been so small as on the 1st of September, 1846. And this we think constitutes one of the great differences between our prospects at this moment, compared with those at the same period in 1845. On the 1st of September, 1845, the stocks of old wheat were larger than they probably had been in any former year; and on the same

day this year, they were smaller than for many years past. Nor do we overlook the enormous quantity of foreign wheat and flour which has been introduced during the last two months.

The next consideration is the character of the crop of the present year, respecting which, the accounts are more conflicting now that a portion of it is thrashed out, than they were at the time of reaping. In most of the southern counties there can, however, be little doubt that, taking into account quality and quantity, the yield of wheat is as nearly as possible *an average* one—understanding by *that vague term*, that the crop is as good as can be looked for under an average of favourable circumstances; and certainly it is infinitely better in quality, and fully equal in quantity, to the crop of 1845. In the north, however, and especially in Scotland, the difference between the wheat crops of 1845 and 1846, is very much less in favour of the latter year, if, indeed, it be so at all. The wheat crop in the north in 1845, was rather better than in the south; whereas, in the present year, the crop in Scotland has sustained injury by wet, and in some places the crop is not only light, but has been harvested in a very indifferent condition. Still, taking the whole of the United Kingdom, the wheat crop of 1846—taking quality and quantity—we compute to be considerably larger and better than that of 1845. But against this increased quantity, we have to consider that the crop of 1845 was very late, and from the large quantity of old wheat in stock, and the soft quality of the new wheat, was not brought into consumption till late in the autumn. In the present year the harvest was a month earlier, the quality was dry and good, and the barrenness of stocks caused it to be brought immediately into consumption. The lowest estimate that can be made on this account, is, that the crop of 1846 has been begun for general use at least two months earlier than that of 1845 was; which fact, we think, will fully balance any superiority of the yield of this, compared with that of last year.

Then, as to the potatoe crop, whether it be large or small, is a matter of comparative indifference; for, speaking generally, and in reference to the supplies of the winter and spring, the whole crop is destroyed.

America is the only country to which Europe can look for a supply of grain this year, if we except some parts of Poland; and when we consider that France and other continental States will be equal competitors with ourselves for the flour and wheat of the United States, we cannot conceive that it will be wise, even if it be possible, for the Government to maintain through the winter the duty which even the present law imposes. We look forward to a time when state necessity will compel us to abandon all duty upon the importation of food, which, however small it may now be, will be quite sufficient to give a preference to the markets of other countries over our own. Whatever might have been considered the emergency of last year for opening the ports, we are clearly of opinion that it will be found, sooner or later, to be much greater during the coming winter.

To Preserve Grapes.—Take a well-bound cask, from which the head is to be removed, and place at the bottom a good layer of fine saw-dust or bran. On this place a layer of grapes, then bran and grapes alternately, until the cask is full, taking care that there is sufficient bran between each layer of grapes to prevent their touching each other. Put on the head, which is to be cemented, and the grapes will keep well for a year. When used, in order to restore their freshness, cut the stalk of each bunch, and place it in wine, as flowers are placed in water.—*American Agriculturist.*

Potatoes.—We must again draw the attention of our correspondents to the importance of not coming to hasty conclusions respecting this important matter. It is the worst kind of trifling to pretend that this, that, or the other little experiment has secured a crop, when we are only just at the beginning of the end. We must therefore decline to give insertion to a large number of representations which *can* have no value, and which their writers would regret to see on record hereafter. To imagine that planting shallow, or planting deep, earthing up or letting it alone, and fifty more such crotchets, can have any effect, is worse than absurd; it is mischievous, for it tends to mislead unreasoning minds.—*Gardeners' Chronicle.*

Arrival of Poultry from America.—On Sunday, the America, 500 tons, arrived in St. Katharine Docks, Liverpool, from Boston, with twenty-five cases of turkies, geese, and capons; also six boxes red reindeer of superior quality. They were packed in ice to preserve them. We believe this to be the first importation of the kind.—*Wilmer's Liverpool Times, April* 10.

Green Corn.

Our friend Chandler of the U. S. Gazette has long insisted that there is not, and never was, any place comparable to Philadelphia for all kinds of comfort. A residence here of thirty or forty years, has confirmed him in this opinion; and to show its sincerity, he declares he is willing to take another term of equal length, though we know he was no child when he came. Well may he profess satisfaction with his home lot, if he can be fed with fresh green corn in mid autumn. We take the following from his paper of the 17th ult.—Ed.

Will Mr. Chandler accept a few ears of Sugar corn, grown from seed planted on a lot in North Ward, on the 1st day of August, It was sown at that advanced period of the season with no expectation it would produce corn fit for the table. The result is worthy of note, as showing on a small scale what can be accomplished under a climate like ours, and demonstrates the correctness of the principle laid down by the late lamented Mr. Patch, "that some things can be done as well as others."

The size of the lot is about 36 by 120 feet, covered some five or six inches with coal ashes. During the dry weather it was freely irrigated, although the care thus bestowed was the source of much amusement to my neighbours—as I was assured by them of a "large yield" with the *latest* premium at the Agricultural fair—besides congratulations on the passage of Sir Robert's Corn Bill—advance in price of bread stuffs, &c. Since they have seen me engaged in plucking the ears, their facetiousness is all gone, and with longing looks and bland voice, they remark "that Green Corn *freshly* gathered is a luxury not often found on a city table, and so *late* in the season, it must be rare even in the country. Enquiries too have been made with apparent solicitude as to the amiableness of my dog's disposition, and whether there are any man traps or spring guns about.—*Schuylkill Sixth st., Oct. 8th.*

The Crops in Great Britain.

The editor of the "Circular to Bankers," a very careful observer, has just published the result of his recent investigations into the state of the crops. He observes:—

"The spread of the disease has been signally arrested, and a much larger proportion of the crop of potatoes in Great Britain, and also in Ireland, will, we trust, be preserved than any man dared to hope a few weeks ago. This is so far extremely satisfactory, and has afforded us great relief. No doubt this disease will prove a severe and trying calamity under the most favourable circumstances, but we may now rationally indulge a hope that it will not prove utterly destructive of that important resource for the annual supply of human food, the crop of potatoes. There is no important substance, no material proportion of any thing raised annually in great bulk for the sustenance of civilized man, which is so liable to waste and destruction as the potatoe; and we have no doubt in ordinary seasons one half of the usual crop is, in Great Britain, either used for cattle or wasted, and that not more than one half is converted into food for man. This suggests a very interesting reflection at this juncture, for if only one half of an ordinary crop be applied directly to human food, a much smaller than a usual supply would prove adequate to that purpose, exclusively, provided there be an abundance of other food fit for cattle, to be substituted for the potatoes and preserved roots usually given to them. Then how stands the case as to that point, of a much larger proportion of the potatoe crop being under the exigency applicable to the use of human food, because the abundance of other kinds of the food of animals will cause a much smaller demand for potatoes to feed them?"

With regard to the other crops required for feeding of cattle, he says he feels justified in stating, "that there is a large produce of turnips this season—provided they can be preserved so as to be available.—Then there is the largest supply of grass, clover, lattermath, and hay, collectively, ever known in England." Hence, as food for animals, potatoes will not be used to any considerable extent, if at all required.

With regard to the stock of old wheat, he asserts his conviction, founded on careful observation, "that with the single exception of 1845, the stock of old wheat is larger than it has ever been at harvest time since the autumn of 1837, though it is very much less than it was at the present date of 1845." The points of the case, which investigation has established to the satisfaction of his mind, he states to be:—

"1. That the potatoe disease is not so bad as public feeling and the public press have represented it; that it has been signally checked in its ravages, and has probably, in great measure, spent its force for the season; that the abundance of food for cattle will liberate an unusual portion of a diminished annual supply of potatoes for human food; consequently, that the store of potatoes may, with economy in the use, enforced by a higher price, be sufficient to serve the people for food in reduced rations for three fourths of the time that potatoes annually

serve for in ordinary times and seasons—the writer has this week seen and tasted good potatoes which were dug up in October, 1845.

"2. That the wheat crop of England approaches nearer to an average crop—being such as to prove more deficient in measurement than in its ultimate results in the shape of flour and bread. That, although hot parching weather has in some quarters rendered the grain small and flinty for the want of gradual ripening, especially in the northern counties, it is generally of excellent quality for manufacture through all processes and their products, by giving stronger flour and more bread; it has a smaller proportion of refuse than is usually found in average wheat crops; the weight per bushel exceeds the weight of most good well secured crops; and therefore, it is not to be estimated by measurement alone, which this year is not quite so perfect a criterion as in most seasons."

For the Farmers' Cabinet.

Character of Twenty Fine Varieties of the Strawberry,

BY WILLIAM R. PRINCE OF FLUSHING.

N. B. The term staminate is used where the flowers have strong stamens either with or without pistils, it not being yet fully determined which of the varieties are simply staminate, and which absolutely perfect.

Large Early Scarlet, the most common in our gardens, but very valuable, vigorous growth, foliage pale green, perfect flowers, fruit medium size, and large on a rich soil, conical, some obtuse and some pointed with slight neck, detaches readily, light scarlet, ripe this season, May 22nd to 30th,—the earliest at market, but may be superseded by the Primordian, which is more showy and prolific.

Primordian, a new vigorous variety, pistillate flowers, fruit larger than the preceding, deep crimson, fine flavor, conical pointed, shaped like the Hudson, ripens about the same time as the preceding, exceedingly prolific, the fruit in profuse clusters, of fine color and very showy. It is the most productive and valuable of all the early varieties for market, or for small gardens.

Garnestone, vigorous growth, staminate flowers, fruit large, short ovate pointed, of high flavor, second to none but the Swainstone, bears tolerably well.

Bishop's Wick is of dwarf habit; flowers pistillate, fruit conical obtusely pointed, dark crimson, good flavor, resembling that of the Black Roseberry, and nearly as dark in colour; it is one of the latest varieties.

Primate is a seedling from the Prince Albert, of vigorous growth, with perfect flowers; the berries are large, of a beautiful deep scarlet hue, oval, with an obtuse point, sweet, and of fine flavor; it is a very productive and valuable variety.

Crimson Cone, an exceedingly vigorous variety, with very tall petioles and large foliage; flowers pistillate, fruit in profuse trusses on long peduncles, the berries brilliant, dark scarlet, remarkably beautiful and striking, seeds very deeply imbedded, ripens at the same time as the Hovey, Hudson, and Methven varieties. At market this strawberry commands the very highest price, and as the crops are so abundant, and the fruit so beautiful, it may be deemed one of the most desirable of the whole family.

Elton, the plant large in all its parts, petioles downy, flowers staminate, berries large, oblong conical, light scarlet, splendid, and of high flavor; it is but a moderate bearer.

Black Roseberry, foliage of medium height, flowers pistillate, berries blackish crimson, very firm, of roundish form, pleasant flavor, with sufficient acidity for preserves; don't rot even in wet weather.

Crimson Pine, a new variety, with tall vigorous foliage; flowers staminate, berries large dark red, but not of the deepest colour, conical pointed form, but some obtuse or rounded at the extremity, of fine flavor, rather early; it assimilates in growth and appearance with the Hudson.

Black Prince is a very distinct variety, with very tall and vigorous broad dark green foliage; flowers pistillate; fruit in large showy trusses, of a round and very compressed or flattened form, of a blackish crimson hue and good flavor. It appears to be very productive and an estimable as well as a unique variety.

Deptford Pine, a vigorous plant; but requires a position shaded from the noonday sun, or the foliage will perish; flowers staminate; berries of the shape of the Elton; large dark red, oblong pointed conical form, very showy and of good flavor.

Boston Pine of vigorous growth, but the leaves not so large as many others. It sustains a hot position remarkably well; flowers staminate, berries of medium size, obtuse conical, with a neck, dark red, sweet, of good flavor.

Myatts Eliza, a vigorous plant, with long peduncles and large foliage, the flowers staminate, berries irregularly ovate or conical, very variable in size, no neck, dark scarlet, sweet, rich, of high flavor: it unfortunately is a very shy bearer.

Southborough, one of the most vigorous in growth and in the dimensions of its pe-

cioles, foliage, and flowers; staminate, berries very large, roundish ovate, deep scarlet, of good flavor. This is one of the very few varieties with large fruit, that support their berries erect on strong peduncles; it is one of the later varieties at maturity.

Princess Alice Maude is a seedling from Keen's Seedling, of vigorous growth, with very broad and remarkably luxuriant dark green foliage, but only of medium height; the flowers are very large, and the most perfect in both organs of any variety I have seen; berries very large, dark crimson, conical obtusely pointed, but often somewhat flattened or angular; sweet, and not high flavored. In maturity it is next after the Primordian, and large Early Scarlet, and continues long in bearing; it is the most valuable recent acquisition from Europe.

Prolific Hautbois, of vigorous growth, flowers perfect with strong stamens on most of the flowers, but some have only rudiments; berries largest of this class, conical, dark dull red, very high musk flavor, excellent; it is a productive variety, and in rich moist soils, it will produce a considerable autumnal crop of fine fruit.

Large Flat Hautbois, of vigorous growth, flowers perfect, stamens but half the usual height; fruit of medium size much compressed, but partially reddened, in profuse clusters, of very high musk flavor and greatly esteemed. As the trusses of fruit are borne above the foliage, they present a beautiful appearance at the period of maturity.

Hovey's Seedling, vigorous growth, dark green very luxuriant, broad foliage, similar to Keen's Seedling, but larger, of only medium height; flowers small, invariably pistillate, one of the latest in expansion, and fewer in number than on most of the other varieties, but when fertilized by a staminate variety, almost every flower produces a berry; the fruit very large ovate, deep red, firm, bears carriage well, not high flavored, but a very showy, productive, and valuable market fruit.

Ross Phœnix is a seedling from Keen's Seedling, and cannot be distinguished from it in growth, flowers, or fruit, but is said to be much more hardy; it is of dwarf habit, foliage broad, dark green and luxuriant; flowers very perfect like its parent; berries of rounded form, sometimes cocks-comb shaped, dark red, sweet, and of excellent flavor.

Swainstone has pale green foliage, and requires a position shaded from the noonday sun, as in hot positions the leaves are apt to burn and die away; the flowers are staminate; berries large, ovate, scarlet, and when full ripe of higher flavor than any I have yet seen; a moderate bearer. It produces no secondary crop with us, but strong plants will, the second year, if the season is wet, or in a strong moist soil, throw up secondary trusses of flowers and fruit a week later than the first.

Prince Albert is of vigorous growth, with large luxuriant foliage; flowers strongly staminate and in most profuse clusters, thus rendering it an admirable fertilizer; berries of beautiful colour and regular form, dark scarlet, and usually a long pointed cone, but occasionally cocks-comb shaped, not high flavored: it is a productive variety and greatly admired.

An Incurable Disease.—A gentleman one day walking along the streets of a crowded city, had his attention attracted to a beggar, who besought his compassion, and whose whole aspect betokened misery and want. The gentleman's heart was touched. He paused, and after giving an alms, inquired, very sympathisingly, what was the cause of the beggar's misfortunes, and if he laboured under any complaint. "Yes," replied the party addressed, "I have for years laboured under a disease which I fear will at last carry me to my grave." "Pray, what disease may it be?" said the gentleman. "Ah, sir, it is of so dreadful a nature that I cannot show it to you on the public street, but if you will be so good as to step aside, I will exhibit it, provided you promise not to speak of it to any one." "Agreed," replied the gentleman, and forthwith both adjourned into a private corner. "Now," saith the beggar, opening his clothes, "do you behold the disease which is pressing upon me?" "No, I can see nothing —you are only shamming illness." "Alas, sir," answered the beggar, "you are short sighted; do not you perceive that the disease which afflicts me, and is eating into my vitality, is laziness?—it is a disease which has grown upon me from my birth, and is now altogether beyond the possibility of cure."

The Grape.

At a meeting of the American Institute held in New York last month, Dr. Underhill offered the following;—

Resolved, That the culture of the Native Grape is a subject of primary importance, and that it be recommended to all the agricultural associations in the union to make experiments with the different kinds growing in their vicinity, in order to ascertain their properties, to test their qualities, procure seedlings from them, and by high cultivation to secure such varieties as will lay the foundation for successful culture.

For the Farmer's Cabinet.

Hyacinths in Glasses.

Is the editor of the Cabinet fond of flowers? If he be, or if he be not, will he allow a frequent reader to send an extract from Hovey's Magazine of Horticulture, in relation to the growing of Hyacinths? I love flowers at all seasons, but particularly do I enjoy them when the inclemency of winter makes their bloom depend upon the success of in-door management, and when their contrast with the gloom abroad makes them doubly delightful. In fact, I hardly feel comfortable without my flowers—summer or winter, completely sympathizing in the sentiment that they are "nature's poetry." I would cultivate them for the serenity and quietude they tend to throw over the feelings, and for the ideas which they convey, I acknowledge, to my mind of the perfect benignity of the Divine Being.

While caring for my poetical plantation, I often read myself a little homily, and am surprised at my convictions of carelessness in "dressing and keeping" the garden of my own heart.

The suggestions at the close of the following extract, are quite pretty, and I mean to carry them out.

Hannah.

"When it is desired to grow hyacinths in glasses with water, good sound large roots should be selected; the glasses should be of some dark colour, such as blue, purple, or green, or else opaque, as the roots shun light, and, therefore, do not thrive well in clear glasses. The glasses should be filled with rain, or river water, up to the neck, or so far as, that the ring at the bottom of the bulb only should touch the water. They should then be put into a dark, warm closet until the bulb has emitted roots, and the shoot from the crown has grown about half an inch in height; it should then be placed in a shady part of the room for four or five days, but not over a mantel piece, or near a fire, or in a strong draught of air; and afterwards be removed to a window with a sunny exposure, giving air by raising the sash for two or three hours during the middle of the day, when the sun shines. On no account should they be placed outside the window, as the cold harsh winds which prevail at this season effectually check their growth. The water should be changed about once in two or three weeks; the glasses should be turned on one side, and the roots partially withdrawn to let the water flow out freely, as, when the roots are wholly withdrawn, it is difficult to replace them without seriously injuring them.

"The single hyacinths are generally the best for blooming in water.

"A very pretty effect is produced by growing hyacinths in moss. For this purpose, an open-worked French basket may be procured, and a lining of moss placed inside; a glass or other dish is also to be placed in it, and this dish is to be filled up with moss in which the bulbs are to be placed; the moss is then to be well moistened with water, and the bulbs treated as directed for those grown in glasses, only that an excess of water is to be avoided, as if the water covers the bulbs, they will decay. A rather singular effect is also produced by taking rather a large sized turnip, and scooping it out from the root end, until it is about half an inch in thickness, filling up the body of the turnip with mould, and planting a hyacinth in it, and then suspending the turnip by three ribbons or otherwise. The leaves of the turnip will shoot out and turn upwards, completely hiding the roots, and making a very pretty vegetable flower pot."

The Alpaca.

Philadelphia, Sept. 30th, 1846.

My Dear Sir,—I beg leave to hand you specimens of wool from the Alpaca, of various natural colours, with specimens of goods manufactured from the same; similar specimens were presented to the British Association at Cambridge, in 1846, and I hope they may be useful to the Agricultural Association of Philadelphia. These were sent to me by William Rathbon, Esq., of Liverpool, a gentleman well known both there and in London, for his liberal and public spirit. To procure them for me cost much trouble. Mr. Danson, who furnished them to Mr. Rathbon, seems a great enthusiast, anxious that all the information known as to the Alpaca and its value, should be made as universal as possible, and with this view he sent me through Mr. Rathbon, two copies of a Treatise on the Alpaca, one to be given to a public Library in Pennsylvania, the other for myself; in compliance with Mr. Danson's request, I beg to present through you a copy for your Association, and at the same time to request your acceptance of the specimens sent to me, hoping that they will be of some public use in your possession.

I remain, dear Sir,

Your most obedient servant,

A. Chillas.

Alfred Langdon Elwyn, Esq.,
Cor. Sec. of the Ag. Soc. of Pa.

The Golden-fruited Orange Tree.

Citrus aurantium.

The Citrus aurantium, under favourable circumstances, usually attains a height of twenty-five or thirty feet, and is graceful in all its parts. The trunk is upright, and branches into a regular or symmetrical head. The bark of the twigs is of a soft and almost translucent green, while that of the trunk and older branches is of a delicate ash-gray. The leaves are moderately large, beautifully shaped, of a fine healthy green, and shining on the upper sides, while the under sides have a slight appearance of down. The flowers occur in little clusters on the sides of the branches, are pleasing in their form, of a delicate white in the sweet oranges, and in the more acid varieties slightly tinged with pink. In some plants they have a more powerful odor, and are, for the moment, more rich; but in the orange grove there is a fragrance in the aroma which never satiates nor offends; and as the tree is at one and the same time in all stages of its bearing—in flower, in fruit just set, and in golden fruit, inviting the "hand to pull and the palate to taste,"—it is hardly possible to conceive or imagine any object more delightful. There is something, too, peculiar in the organization of the fruit of this tree. Its rind or external covering, is of a spongy texture, containing but little juice or sap of any kind in its substance; but the external surface is covered, or tuberculated with little glands, which secrete an acrid, volatile oil, very inflammable, and of a strong, pungent taste. The interior of the fruit is usually divided into nine to twelve carpels or cells, which contain the pulp, seeds, and juice, and are united by a whitish pellicle or leathery skin, radiating from the centre to the rind, and may easily be separated without wasting the juice. The seeds are solitary or several, and are attached to the inner angle of the carpel, and in some varieties are entirely wanting.

Varieties.—The varieties or races of the orange have been greatly multiplied; but whether from the proneness to change from some original differences in the species, or from difference of soil and climate, it is difficult to determine. It was the opinion of Galessio, who described forty principal kinds, as cultivated in Italy, that they were all derived from the common orange, although some are more acid, and others more bitter in their flavor.

The orange is believed to have been originally a native of the warmer parts of Asia, and has long since been acclimated to the shores of the Red and Mediterranean Seas, to the temperate and tropical isles of the oceans and seas, and to the warmer portions of Africa and America. It is especially cultivated with a view to profit, and abounds in Portugal, Spain, France, Italy, Greece, Turkey, Egypt, northern Africa, and many of the islands adjacent to those countries; also in the Azores, Brazil, the island of Cuba, and East Florida.

The first distinct notice of this fruit on record, is by Avicenna, an Arabian physician, who flourished in the Xth century. He not only describes *oleum de citrangula*, (oil of oranges,) and *oleum de citrangulorum seminibus*, (oil of orange seeds,) but speaks of *citric acid*, (acid of citrons.) According to Galessio, the Arabs, when they entered India, found the orange tribes there, further inland than Alexander had penetrated; and they brought them to Europe by two routes,—the sweet ones through Persia to Syria, and thence to the shores of Italy and the South of France, and the bitter ones, by Arabia, Egypt, and the north of Africa, to Spain and Portugal.

It does not appear that the orange was of Chinese origin, as it is not mentioned by Marco Polo, who is so minute in describing all the other wonders of the "Celestial Empire." It is said to have been found by the Portugese upon the east coast of Africa; but it is not known whether it had been indigenous there, or disseminated by the Arabs. When the Portuguese reached India, in the early part of the XVIth century, they found the orange there, and also in China, which was then visited by them for the first time by sea.

At the Azores, nothing can exceed the rich luxuriance of the orange groves, from November to March, when the emerald tints of the unripe, and the golden hue of the mature fruit, mingle their beauties with the thick, dark foliage of the trees. Although the oranges of the Azores are among the best that are to be met with, they are not indigenous productions of those islands; but were introduced there by the Portuguese, as the same fruit was originally sent, by the Spaniards to the West Indies and the continent of America. In the midst of a forest, on the banks of the Cedeno, Baron Humboldt, in 1800, found wild orange trees, laden with large and sweet fruit. These were probably not indigenous, however, but the remains of some old Indian plantations.

The orange plantations of the Azores are usually of large extent, always encircled by walls fifteen or twenty feet in height, and within thick belts of other trees, to protect them from the breezes of the sea. The

trees are commonly propagated by cuttings or layers, arriving, in seven years after planting, to good bearing, and in time spread out with the majestic luxuriance of chesnut trees. Each tree, a few years after, upon an average, annually produces from twelve thousand to sixteen thousand oranges, and one instance is recorded of a single tree producing twenty-six thousand fruits in a year!

The amount of oranges and lemons usually exported from the Azores in a year, is upwards of one hundred and twenty thousand boxes, and seventy or eighty vessels are sometimes seen lying in the roads, waiting to take their cargoes. Besides these, a large quantity of the sweet lemon is cultivated for home consumption, which are produced by grafting the sour lemon on the orange. This fruit is tasteless and vapid, though esteemed salutary and refreshing.

In Algarve in Portugal, and in Andalusia in Spain, there are trees of great size; and extensive orchards of oranges have formed the principal revenue of the monks for several centuries. In Cordova, the seat of Moorish grandeur and luxury, there are orange trees still remaining, which are supposed to have been planted as early as the XIth century; and in the craggy mountains of that province, which are covered with gardens and vineyards, and forests abounding in fruit, the air is perfumed with the flowers of the orange, and carries back the imagination to the days of the Moorish poets and historians, when the land they conquered was adorned with all the refinements of their taste and intelligence, and the luxuries of the east were fully realized.

The orange is said to have been introduced into Portugal by Camoens. In apostrophizing on a little grove that waved upon an open casement, that poet was heard to say, "Yes, I have made a bower for the honey-bee, hung with golden lamps."

In France, the orange country is chiefly Provence, or that part which lies to the eastward of the Rhone; and plantations or groves of oranges are the most abundant and the most beautiful, on the banks of the Var, and especially in the environs of Nice, where the varieties are very numerous, and come to great perfection. According to Risso, there was a tree in that neighbourhood, in 1789, which generally bore upwards of five thousand oranges, and was more than fifty feet in height, with a trunk so large that it required two men to embrace it. Here, the Provence rose, the tuberose, and countless other flowers, blend their sweets with that of the orange; and amidst all the richness of these perfumes, the pestilent airs of the tropics, and even the *sirocco* of southern Italy and Sicily, are altogether unknown.

In Italy, the orange groves accompany the chain of the Apennines round the whole gulf of Genoa, and until, upon the confines of the plain of Tuscany, they subside in elevation, and bend more toward the Adriatic; although, further to the south, the climate and vegetation of Tuscany cannot be compared to those of the little valleys of Provence and Liguria, especially the latter. About Florence there are still orange trees in the gardens; but there are none of those aromatic groves and plantations which are found further to the west. Mr. Spence, who passed some winters in Florence, states that the cold is so great there, that skating is sometimes practised occasionally four months of the year, and the thermometer repeatedly stands at 24° to 26° F., at 8 A. M. Eastward of Tuscany, though further south, the country is even less adapted to the production of the orange; the sea-coast is barren, the interior is dreary, and over the whole, the "pestilent malaria" creeps, forbidding man to approach, even for the cultivation of the fields. In the gardens at Rome, however, notwithstanding the thermometer ranges from 2° to 4° F., lower, during the winter, than at Nice, the orange tree flourishes, and attains its usual size. At the convent of Santa Sabina, in Rome, there is a tree of this species thirty-one feet high, which is reputed to be upwards of six hundred years of age. After the gulf of Gaeta is passed, and the shelter of the more elevated mountains in the kingdom of Naples is obtained, the orange groves again make their appearance, and particularly abound along the western shore of Calabria, and in the vicinity of Messina and Palermo, in the island of Sicily.

The precise period at which the orange was introduced into Britain, is not with certainty known; but it is supposed that it was brought from Portugal by Sir Walter Raleigh, towards the end of the XVIth century. The trees were planted near a wall in the open air, at Beddington, in Surry, with a movable cover, to protect them from the inclemency of winter. They flowered, and bore fruit, and at the beginning of the XVIIIth century, they had attained the height of eighteen feet, with a diameter of nine inches, and the spread of the branches of the largest one was twelve feet in one direction, and nine feet in the other. In 1738, they were surrounded by a permanent enclosure, like a green-house, and were destroyed by a great frost in the winter following.

Parkinson, in his "Practise of Plants," published in 1629, gives some curious directions for the preservation of orange trees, from which, one would be led to infer that the trees at Beddington, with their ample protection of a movable covering in winter, had not been in existence at that time. "The orange tree," says he, "hath abiden, with some extraordinary branching and budding of it, when as neither citron nor lemon trees would, by any means, be preserved for any long time. Some keepe them in square boxes, and lift them to and fro by iron hooks on the sides, or cause them to be rolled on trundles or small wheels under them, to place them in an house, or close galerie, for the winter time; others plant them against a bricke wall in the ground, and defend them by a shed of boardes, covered with seare-cloth, in the winter; and by the warmth of a stove, or such other thing, give them some comfort in the colder times; but no tent or mean provision will preserve them."

Towards the end of the XVIIth and in the early part of the XVIIIth centuries, the orange tree was a very fashionable article of growth in conservatories, in France, as well as in Britain. The plants were mostly procured from Genoa, with stems generally from four to six feet in height; they were planted in large boxes, and were set out during summer, to decorate the walks near the houses, in the manner still practised at Versailles, the Tuileries, and some other collections in Europe and in America.

The largest trees in Britain are said to be those at Smorgony, in Glamorganshire; they are planted in the floor of an immense conservatory, and produce fruit in abundance. It is said that these plants were procured from a wreck on the coast in that quarter, in the time of Henry VII.

In the south of Devonshire, and particularly at Saltcombe, one of the warmest spots in England, it is said there are gardens containing orange trees which have withstood upwards of one hundred winters in the open air. The fruit is represented as being as large and fine as any from Portugal..

In East Florida, the orange grows spontaneously in the neighbourhood of New Smyrna. In noticing that town, in 1791, Bartram observes, "I was there about ten years ago, when the surveyor ran the lines of the colony, where there was neither habitation nor cleared field. It was then a famous orange grove, the upper or south promontory of a ridge nearly half a mile wide, and stretching north about forty miles. All this was *one entire orange grove*, with live oaks, magnolias, palms, red bays, and others." He also makes frequent mention of extensive groves of wild oranges in Florida, as far north as latitude twenty-eight degrees. Dr. Baldwin, in 1817, in speaking of Fish's Island, says, "Here are the remains of perhaps the most celebrated *orange grove* in the world. Some trees still remain that are thirty feet in height, and still retain a portion of their golden fruit." In the same year, in describing the beauties of the St. John's, he says, "You may eat *oranges* from morning till night, at every plantation along the shores, while the *wild* trees, bending with their golden fruit over the water, present an enchanting appearance." These trees are not regarded as originally natives of the new world, but were introduced by the Spaniards, at the time they settled Florida, or by a colony of Greeks and Minorcans, who founded New Smyrna, in 1769, while that country was in the possession of the English. Audubon, as late as 1832, observes, "Whatever its original country may be supposed to be, the wild orange is, to all appearances, indigenous in many parts of Florida, not only in the neighbourhood of plantations, but in the wildest portions of that wild country, where there exist groves fully a mile in extent." This wild fruit is known in Florida by the name of the *bitter-sweet orange*, which does not differ materially from the Seville orange, and probably originated from that variety. The occurrence of these trees, wherever they grow, is a sure indication of good land.

For many years past, no small degree of attention has been paid to the culture of the common edible orange, at St. Augustine, and on the river St. John's. The number of trees owned by different individuals, prior to 1835, varied from ten to fifteen hundred. Perhaps no person in Florida had more than the latter number in full bearing condition at the time of the great frost, which occurred on the 9th of February, of that year. There were many trees then to be found in St. Augustine, which exceeded forty feet in height, with trunks from twenty to twenty-seven inches in diameter, and which, probably, were more than a century old. But there are many persons in that vicinity, at the present time, who are extensively engaged in the business. The late Mr. Kingsley left upwards of six thousand bearing trees, in 1843, all of which are on the St. John's. In addition to these, there are also on the same river more than one hundred orange groves, which, it is estimated, contain twenty thousand trees. At St. Augustine, it is said, there are at least thirty thousand standard trees, four thousand of which are owned by Mr. J. Douglass; about the same

number by Mr. V. Sanchez; and by Mr. J. Drisdale, and the lady of the late Dr. Anderson, fifteen hundred each. Notwithstanding the injuries which the trees have suffered by the depredations of insects, for a few years, as well as by the discouragement caused by frost, it may be observed that there are more standard trees planted in Florida at the present time, than there ever were at any former period. Previous to 1835, St. Augustine produced annually from two millions to two millions five hundred thousand oranges, which were equal in bulk to about fifteen thousand barrels. They were shipped to Charleston, Baltimore, New York, Boston, &c., and usually brought from one dollar to three dollars per hundred, or about three dollars per barrel, producing in the aggregate, a little short of fifty thousand dollars per annum. During the orange season, the port of St. Augustine formerly presented quite a commercial aspect, there being frequently from fifteen to twenty vessels in it at a time, loading with fruit. A person who was the owner of one hundred standard trees, could safely rely on a yearly income arising therefrom, of two thousand dollars, sometimes three thousand, and even four thousand dollars! In 1829, Mr. A. Alvarez gathered from a single tree, six thousand five hundred oranges: and it is said that there was a tree on the St. John's, which bore ten thousand fruits in one year! But ordinarily each tree produces about two thousand fruits.

The orange has also been an object of culture for a long time in Carolina and Georgia; and in 1762, it will be seen by the London "Annual Register" for that year, that there were four barrels of this fruit shipped from Charleston to England.—*Browne's Trees of America.*

For the Farmers' Cabinet.

Curing Hay.

On the 87th page of the last number of the Cabinet is a statement of expedition in collecting and storing hay, and an opinion given in respect to the condition of that hay, which, should it be the means of inducing the general adoption of such a practice, would be productive of great loss.

The relative value of labour and hay, and the risk of sustaining damage from rain, and incurring additional expense, has led to the general practice of hurrying it in, in such a condition that much of its value leaves it in the mow. In a practice of more than thirty years, I have seen but two instances in which such was not the case—they were under circumstances of unusually continued drought.

The quantity of salt said to be used, though much too small to produce the effect ascribed to it, was too great for the benefit of the cattle.

The statement that it contained, when put in the mow, "all the nutritious qualities required to form flesh, bone, muscle, and to promote the growth of the animal to be fed on it," is admitted: but that it will remain so, the laws governing organized matter, will not allow me to admit; and had the operator taken quantities of the grass cut on second day—put one parcel in the centre of his mow, and exposed the other in a proper manner to the influence of sun and air, even till seventh day, and weighed the two next winter, he would have found that the grass put by to be dried by the heat produced by the decomposition of its own substance, had lost the most in weight:—had he then fed the two parcels under circumstances that would have enabled him to test their relative value for supporting the strength and maintaining or increasing the weight or produce of the animal, he would have found that it had lost even much more in value than it had in weight.

Why this must be the result I will endeavour to explain. All substances capable of sustaining animal life, are combinations of three or four simple elements united, not in the manner or order of their natural or inorganic affinities, but as they have been induced to unite by the vital force, and can only be maintained by preserving them from the influence of disturbing causes. Such a cause are moisture and heat—where they are present new arrangements less complex will be formed, and unless moisture or temperature fail, the organic arrangement will be utterly destroyed, and the most nutritious compound will be converted into water, carbonic acid, and ammonia.

So far as the support of respiration and the maintenance of animal heat are concerned, the value of any substance adapted to animal subsistence, is represented by its capacity to unite with oxygen: in a mow of hay, the capacity to unite with oxygen is reduced in proportion to the amount of heat generated, including that which is sensible and that which is rendered insensible, by uniting with the water to convert it to vapor. Nor is this the worst effect produced. As nitrogen is weak in all its affinities, the substances containing nitrogen—and such only are capable of forming flesh or repairing the waste occasioned by exertion—are more easily disturbed than those that do not. Decomposition commences on them—they

are therefore more reduced in quantity than those that support respiration and maintain animal heat.

As the heat given out by the union of oxygen with organic substances when reduced to their natural affinities, is a fixed quantity, whether that result be effected by fermentation or combustion, we shall not be far astray when we adopt it as a conclusion governing our proceedings, that it will be requisite to feed with hay that has been heated in the mow, as much grain, as being burned, would have produced the same amount of heat, to produce the same result that the hay alone would have done, had it been made so dry that it would not have heated.

There are probably few agriculturists who have not noticed the difference in the result from feeding hay and the grass of which the hay was made; yet there are many who would contend that hay is not injured, but rather benefited, by a considerable degree of heat in the mow. To me it would appear as rational to contend that water, carbonic acid, and ammonia passing into the air, can sustain an animal as well as caseine, fibrine, albumen, gum, sugar, starch, passing into the stomach.

E. G. Passmore.

For the Farmers' Cabinet.

Curing Hams.

To the Editor,—As the season for slaughtering our cattle and hogs, and putting them in the cellar for family use, is at hand, the mode of curing beef, pork and hams, is important to every housekeeper. I take it for granted every one knows that in curing pork, the main point is to put in a great abundance of good salt. There need be no fear of applying too much. If not required in curing the meat, it will remain in the cask, and is as good as ever to be applied again. In curing beef, salt should be used more sparingly. Six lbs. of fine salt, four ounces of saltpetre, one and a quarter lbs. of brown sugar, make a good proportion of ingredients for 100 lbs. of beef. In twenty-four hours a pickle that will bear an egg end-wise, should be applied. Drying beef should remain in the pickle about ten days. To cure hams thoroughly, so as to have them sufficiently salt to keep, and yet not too salt, and to give them the real *Jersey* flavor, is a more delicate operation, and requires a nice hand. The following recipe is a good one, and may be relied on for making a first rate ham. To 80 lbs. of hams, take four ounces of brown sugar, three ounces of saltpetre, and one pint of fine salt; pulverize and mix them thoroughly; rub the hams well all over, particularly on the flesh side, and lay them on boards for 36 or 48 hours, then pack them in casks, adding two quarts of fine salt to every 80 lbs. of hams. In fifteen or eighteen days, they may be hung up to smoke.

H. M.

Gloucester co., N. J.

Agricultural Society in Prince George's County, Md.

To the Editor of the Farmers' Cabinet:—

By invitation from some of the distinguished agriculturists of Prince George's county, Md., who attended the Cattle Show held at the Rising-Sun Village, near this city, on the 30th of September and 1st of October last, I was induced to make a visit to them for the purpose of attending the exhibition to be given by their Agricultural Society at Upper Marlborough.

Myself and the gentlemen who accompanied me were kindly and hospitably received and entertained, by Col. Capron of Laurel Factory, by whom we were most pleasantly conveyed to Marlborough, a distance of 27 miles, partaking of the kindness and hospitality of his relatives and friends, at their delightful mansions on the road. The country through which we passed is gently undulating, affording many fine views. The soil is naturally a rich sandy loam, with an abundance of the finest marl, and which I was informed, but few of the planters have availed themselves of for the purpose of improving the land.

In many places the fields appear to produce good crops of corn, wheat, and tobacco, notwithstanding the severe rotation of cropping without manure. What would they produce under different management—the application of manures, sowing more grass seed, keeping more stock, and ploughing less land? It would be difficult to find a district of country that could be rendered more productive and beautiful.

On entering the enclosure where the exhibition was held, the first thing that attracted my attention was a tent erected by C. B. Calvert, Esq., sufficiently capacious to accommodate 40 head of his splendid herd of improved Durham cattle, each one having its stall. At the end of the tent was a house placed on wheels, having been brought for the accommodation of his people who had charge of his numerous stock, &c.,—the whole had been brought from his large es-

tate near Bladensburg, a distance of twenty miles.

Near by the above was a splendid lot of improved Durhams, 14 in number, owned by Col. Capron, which, with a lot of superior Southdown sheep, two pair of working oxen, two teams of eight mules each, of astonishing size and quality, handsomely harnessed, were exhibited by that spirited gentleman; in addition to which he made a fine display of the most valuable and beautiful horses.

Several lots of fine Devon cattle were exhibited by Mr. W. D. Clagitt, Mr. Clement Hill, Mr. Thomas Duckett, and Mr. Skinner. Col. W. W. W. Bowie showed some large and superior Leicester sheep—some fine animals of that breed were exhibited by Mr. James Mulliken, Mr. Graham, and others. Some good swine were shown of Berkshire and other breeds.

The display of agricultural implements was highly creditable. The vegetables exhibited from the garden of Mr. Duckett, were of the finest quality—besides these, there were other fine samples. Some fine samples of fruit were exhibited by Dr. Bains, who delivered a very interesting address on the second day.

The collection of domestic articles exhibited by the ladies at the court-house, was numerous and highly attractive, and their presence added greatly to the enjoyment of the occasion. At three o'clock, P. M., the members of the Society with a number of invited guests repaired to the Hotel, where an excellent dinner was provided; at which, the President, Robert Bowie, Esq., presided —during the time of dinner the company were engaged in agreeable conversation, and the discussion of agricultural subjects—after the removal of the cloth many toasts were offered and drunk with great applause. Excellent speeches were made by Col. W. W. W. Bowie, Hon. Mr. Jenifer, late Minister to Vienna, Mr. Duckett, Mr. Charles Hill, Mr. Calvert, and others. After which the President made some very pertinent and excellent remarks, showing the rapid progress made by the Society in a few years, mainly by the exertions of a few public spirited individuals in the county.

On the second day the different committees made report, and the premiums were awarded and paid, during which time much good feeling prevailed. The unsuccessful candidates seemed in no way discouraged, but on the contrary evinced a manly determination to try it again the next year.

In conclusion, Mr. Editor, I must be allowed to say, that a more high minded, intelligent, and truly hospitable people, cannot be found than the planters of Prince George's county.

A. C.

Philadelphia, Nov. 7th, 1846.

THE FARMERS' CABINET, AND AMERICAN HERD-BOOK.

PHILADELPHIA, ELEVENTH MONTH, 1846.

The Exhibition at the *Franklin Institute* closed on the 31st ult., after being open nearly two weeks. The arrangements appeared to us unexceptionable, and afforded every facility for observation and inspection that could be desired. The newspapers of the day gave detailed accounts of many of the articles, and the names of their depositors. We cannot attempt to do either. It was particularly gratifying,—and indeed, surprising, to observe in ranging through the halls, the varied powers of machinery, and the results of its application. We, whose heads are grey, and recollect the world around us, as it was forty years ago, and then recur to our present manufactures—our railroads—steam engines and Magnetic Telegraph, that "nerve of thought," find ourselves, involuntarily inquiring, what shall we be a century hence? As Americans looking over the vast extent of our territory—the salubrity of our climate, and the character of our institutions, the heart thrills with indefinable anticipations, and we are ready to conclude, that even more than our dreams shall be realised.

The delicate and precise performances of the machine for making Cards, as well as of that for covering Buttons, attracted much attention, while naturally enough, nothing more amused the young people, than the lively manner in which the galvanic battery jerked them about.

The variety of Stoves of all sizes, and all patterns, were highly interesting both to young beginners in the arts of housewifery, as well as to many more matronly, who, the stove dealers very well know, are not averse to change. Whoever can be so fortunate as to procure anthracite or wood, might certainly have a choice to suit them.

Dripp's patent Water wheel of cast iron, appears to be an improvement, worth inquiring into, by those who use water power. They are now putting one in operation at the mill at West-town boarding school, in Chester county. It is made at Coatesville, and costs from $160 to $300.

Jennison's Diaphragm Filter for purifying water and other liquids while under pressure, is really a very complete affair. It may be readily fixed to the hydrant in the bath room, and thus add purity of water to its other luxuries. The price is $3 to $5.

Birkinbine's and Benson's Water Rams were successfully illustrating their powers, and showed conclusively, as we think, that all reliance may be placed in them.

The Washing machines, of course, took the attention of our notable and inquiring housekeepers.

A LETTER from Salem, Iowa, dated the 23rd ult., says that "wheat is worth between 40 and 50 cents a bushel on the Mississippi—corn and oats 18 to 20 cts.—beans 30 cents, and buckwheat flour $1 50 to $2 per cwt." The increasing demand for bread stuffs in Great Britain and on the continent, may probably increase those prices. By the Britannia, arrived at Boston on the 7th instant, the report of short crops in Europe is confirmed, and the probability is strengthened that this country will be looked to for a supply of the deficiency.

THE total amount of coal shipped from the various coal regions in this State during the present season, up to the first week in this month, has been as follows, viz:

From	*tons*	*cwt.*
The Schuylkill Coal Mines,	1,026,221	00
Lehigh,	476,714	12
Lackawanna,	275,452	16
Wilkesbarre,	189,582	06
Pine Grove,	64,719	12
Grand total,	2,032,690	06

The retail price is $5 50 for Lehigh, and $4 75 for Schuylkill.

WE called a few days ago to see Fitzgerald's newly invented Threshing Machine, which has been highly spoken of, and of which, without however being so fortunate as to see it in operation, we formed a favorable opinion. The beaters are plain, instead of spikes, and it occupies but little room. It may readily be attached to the endless chain horse power now in use, or may be driven by steam, wind, or water. We were told the grain and straw come out unbroken, and that great velocity may be given to the cylinder, with an easy moderate pace of the horse.

AT a recent meeting of the New York Farmers' Club, a paper was read from the minutes of the Horticultural Society of Paris, giving "an account of a successful experiment of grafting a stem of the tomato upon the stalk of the potatoe, by which a crop of tomatos was raised in the air, while one of potatoes grew in the earth."

TWO bucks and six ewes of the Leicester breed—very superior sheep, and in remarkably fine condition, arrived here last month from Liverpool in the ship Franconia, Capt. Smith. They went on by rail way to their destination at Ashland, where we could hope they long may live to benefit the Kentucky flock, and do credit to Henry Clay, their enterprising owner. Their cost in England, we understood was about $100 each, and their freight about £2 10s. sterling each.

THE Annual meeting and Exhibition of the Bucks County Agricultural Society, took place at Newtown on the 15th ult., and was largely attended. The day was pleasant, and the Newtown Journal says it was estimated that 3000 people were on the ground. "The display of stock," says that paper, "was unusually fine, as well as that of produce and agricultural implements." The ploughing match took place in the afternoon. Diplomas were awarded to the owners of numerous fine horses, cattle, hogs and poultry, as well as for a good display of agricultural implements and products. Five ploughs were entered and contended for the honour of superior workmanship; but the committee were unable to give any one the preference.

Edward M. Paxson delivered a very sensible address, in which he takes occasion to express his surprise that, considering the great proportion of our people who are engaged in agricultural pursuits, so few farmers are sent to the legislature. He thinks it hardly reasonable to raise the complaint so frequently heard, that taxes are oppressively heaped upon them, when they so quietly throw the powers of legislation into the hands of others who may forget their particular interests.

A FRIEND extensively acquainted in the state of Ohio, says the wheat harvest there was unusually fine, and that much more ground has been seeded this autumn than ever was before. The *Hamilton Advertiser* estimates the crop in the Canadas at 12,000,000 bushels. We are also advised that the yield of wheat and corn in Iowa was excellent. We think there is every prospect, that with the increased demand in Great Britain, we will be able to supply it to a great extent at fair prices. Such is the fertility of our soils, and the general character of our seasons, that if Europe will give us one year's notice, we may undertake to supply bread stuffs to any amount.

PASSING the door, a fortnight ago, of our townsman John Hagey, confectioner, in Market street, we observed three large boxes with Isabella grapes, packed in nice clean leaves. He was selling them at twelve and a half cents per pound. They came from Reading, some sixty miles in the interior, and were in good order. Will our farmers avail themselves of the hint?

☞ A YOUNG man with a family, acquainted with the farming business, would be willing to take charge of a farm as overseer, or manager, and thus promote assiduously the interests of the owner. Address the Editor.

NORMAN'S *Southern Agricultural Almanac* for 1847, edited by Thomas Affleck, of Adams county, Mississippi, has been received. There is much in it highly valuable to the Southern farmer and planter.

THE *Farmers' Library* for the present month, is valable as ever. The plates are fine. Our friends Greeley & McElrath, with their Editor, really deserve to succeed in their enterprise, they throw so much liberal expenditure into it, as well as industry and good judgment. When we looked at the *cut* on page 213, we made up our mind pretty conclusively, that *agriculture must be in its nature a progressive art.* The price of the work is $5 a year.

IN a letter from a subscriber at Johnstown, Cambria county, dated 30th ult, he says, "The potatoe disease is general in our mountains; most farmers have not gathered more than they planted. They are selling here from 37½ to 50 cents, and cannot be had for that in any quantity."

The North American stated a couple of weeks ago, that New Jersey had this year produced some of the finest apples ever seen in the United States.—New Jersey is famous for her good fruit, as well as her veal.

M. F. Maury, of the U. S. Navy, in a letter dated at the National Observatory, Washington, on the 26th ult., and directed to the Secretary of the Navy, says he has observed and verified the newly discovered planet *Le Verrier*. He gives its right ascension and southern declination for the three preceding days. The probable distance of this new planet is believed to be not less than three thousand millions of miles from the sun, and its period of revolution is upwards of two hundred years.

"The discovery of this planet," says Lieutenant M., "may be considered the greatest achievement of theoretical astronomy. Astronomers had long since observed that Uranus suffered perturbations in its orbit, for which they could not account by any known cause of disturbance. They conjectured, indeed, that it might be owing to the attraction of a planet out upon the confines of the system, perhaps, but which was considered beyond their reach.

"A Frenchman takes up the subject in his closet, and there, with the perfection of mathematical skill, creates his hypothetical planet, gives it a mass, assigns an orbit, and a period of revolution; and then sets it in motion at a distance inconceivably remote.

"He tries his problem, varies his conditions and tries again. At last the position, mass, orbit, motion and places are such that its attraction satisfies the anomalies of Uranus. Astronomers are astonished at his depth of research, and amazed with his results. He tells those at Berlin where to turn their glasses; they point them according to his directions, and the new planet *Le Verrier* is there."

The Massachusetts Horticultural Society has been famous for its great display of fruit. At the Annual Exhibition in Boston in the Ninth month last, some of the contributors produced more than one hundred varieties of both pears and apples. We are aware that a man's orchard or garden is not necessarily valuable in proportion to the number of kinds of fruit which he cultivates; but the inference we draw in the matter before us, is, that where so much attention is bestowed on the subject, great success and general benefit must result.

Dr. Darlington, one of the first botanists of the country, having furnished us with a copy of his Address before the Chester County Horticultural Society at West Chester, on the 11th of Ninth month last, it is with much pleasure we embrace the opportunity to transfer it to the columns of the Cabinet. We believe there is not a sufficiently general appreciation of the conveniences of the vegetable garden as an appendage to the farm, to say nothing about the meliorating and refined influences of the nicer branches of Horticulture—the Corinthian order of human attainments and pursuits. Let us remember we live in a world where there is abundant room for improvement, and one of whose great watch-words should be—Progress.

FOR SALE,

A BEAUTIFUL FARM,

Nearly adjoining the city of Annapolis, Maryland, containing 350 acres of land, naturally of good quality, and during the last four years, I have had it highly improved with clover, plaster, ashes, lime, and other manures to the amount of upwards of fifteen hundred dollars. The fences and buildings are all in good repair, and divided into ten departments, including one peach orchard, containing upwards of 1500 trees, in fine health of three summers' growth, and an apple orchard in full bearing. About 150 acres of this land are covered with the best sort of building timber.

I have a good wharf, where a large schooner can lie and receive or deliver produce. This farm is very pleasantly situated, high and dry, and about rolling enough to cast off extra rain water,—also has good spring water in several of the fields. The buildings consist of a good dwelling, nearly new, two brick servant houses, one house for the manager, two large tobacco houses, 30 by 70 feet each, one is used for a barn; stabling, corn, milk, and hen houses. From the above dwelling I can go to the Annapolis market in about fifteen minutes, where we have a tolerably good market for hay, peaches, sweet potatoes, milk and butter. Of milk about $2000 worth may be sold annually. Freight is cheap to Baltimore, which is an excellent market, with which we have daily intercourse, both by steam and otherwise. But few farms have the same opportunities of doing business to profit, being now in good order to make money, and only on account of advanced age, infirmities, and residing at a distance, am I induced to part with it. It will be sold cheap. Persons desirous of seeing the place, will please call on me, near Baltimore, Md., and I will go and show it.

ROBERT SINCLAIR, Nurseryman.

August 28th.—4t.

Agency for the Purchase & Sale of

IMPROVED BREEDS OF CATTLE & SHEEP.

The subscriber takes this method of informing his friends and the public, that he will attend to the purchase and sale of the improved breeds of cattle, sheep, swine, poultry, &c., for a reasonable commission. All letters post paid, addressed to him at Philadelphia, will be attended to without delay.

AARON CLEMENT.

Sept. 15th, 1846.

FRUIT AND ORNAMENTAL TREES, EVERGREENS, SHRUBBERY, &c.,

In great variety, for sale as heretofore, by the subscriber, at his Nursery, near Haddington, four miles west of Philadelphia. Orders sent by mail, or left at the office of the Farmers' Cabinet—where catalogues may be obtained—will be attended to, and the trees well packed when ordered to distant places. City gardeners supplied with trees suitable for the streets, at a liberal discount. SAMUEL RHOADS.

Tenth mo. 15th, 1846.

TREES FOR SALE.

The Subscriber has for sale at the Mount Laurel Nursery,—established by J. Needles—an extensive assortment of Apple, Pear, Peach, Plum, and Cherry Trees and Grape Vines. Also, a great variety of

ORNAMENTAL AND EVERGREEN TREES,

Which are of the best quality, and good size for transplanting. Orders left with Josiah Tatum, No. 50, N. Fourth street, will be punctually attended to, where catalogues may be procured.

EZRA STOKES.

Mount Laurel, near Moorestown, N. J.,
Eighth month 15th, 1846.

☞ SHORT ADVERTISEMENTS,

The subject matter of which, may correspond with the agricultural character of this paper, will be inserted at the rate of one dollar for each insertion of ten lines or less; and so in proportion for each additional line. Payment in advance.

SEED STORE,

No. 23 Market Street, Philadelphia.

The subscriber keeps constantly a supply of White and Red Clover, and other grass seeds; fresh Perennial Rye-grass, and Lucerne seed. Field seeds, consisting of choice Spring Wheat, Barley, Potatoe Oats, Northern and other seed-corn. Aso, in season, Fruit and Shade Trees. Garden and Bird seeds generally. Guano in parcels to suit purchasers.

M. S. POWELL.

Philad., Feb., 1846. tf.

FOR SALE,

AT D. O. PROUTY'S

AGRICULTURAL WAREHOUSE,

No. 194½ *Market Street, Philadelphia,*

Corn-Shellers in great variety, price from $1 50 to $50 each; Hovey's Patent Hay, Straw, and Corn-stalk Cutters; Grant's Patent Fan Mills, for chaffing and screening wheat at one operation, warranted to take out cockle, cheat and smut. Also good Fans, for $14 to $18 each.

Whitman's Horse-powers and Threshing Machines, with Straw Carriers and Fan Mills attached; Spain's Improved Barrel Churns, the dashers of which may be taken out to clean. Cheese-presses, &c.; Centre-Draught, Self-sharpening, Right & Left-hand Ploughs, warranted to give satisfaction in their operation.

September 15th—tf.

The quantity of rain which fell in the 10th month, 1846, was nearly two inches and a half. ..... 2.44 in.

Penn. Hospital, 11th mo. 2nd.

COATES' SEED STORE,

No. 49 *Market Street,*

FRESH TIMOTHY SEED,

Of various qualities, from good common seed to the purest and finest that can be produced,

TOGETHER WITH A COMPLETE ASSORTMENT OF

GRASS & GARDEN SEEDS,

Of the finest Quality and best Varieties,—Bird Seeds, &c.

JOS. P. H. COATES.

Successor to George M. Coates.

Sept. 15th, 1846.

PHILADELPHIA

AGRICULTURAL WAREHOUSE,

No. 291 *Market Street, North side, between Seventh and Eighth Streets, Philadelphia.*

The subscriber has just received from Worcester, Massachusetts, an assortment of Ruggles, Nourse and Mason's improved Eagle, Subsoil and other Ploughs, which have been so much approved by the principal Agricultural Societies in New England the several last years; also Bennett's Cultivators and Stevens' Self-Feeding Hay and Straw Cutter, a late and very valuable improvement in that kind of implement; Grain Cradles, &c.; an assortment of Ruggles, Nourse and Mason's Self-Sharpening Ploughs of the form and model of those above named, are daily expected. T. F. has and will constantly keep a large assortment of Farming Implements, as Fan Mills, Straw and Hay Cutters, Corn Shellers, Grain Cradles, Scythes, &c., together with Garden Tools of all kinds.

THOMAS FURBER.

May 15th, 1846. 1 yr.

NEW

Horticultural and Agricultural Ware-house,

84 *Chesnut Street below Third, South side.*

The subscriber has for the better accommodation of his customers, opened the above ware-house, with a large stock of Garden and Field Seeds, crop of 1845. Implements and Books on Gardening and Farming; he calls the particular attention of farmers to his pure stock of Sweede Turnips, Field Carrots, Beets and Parsnips, Pruning Shears, Saws and Knives.

March 14th, 1846.—1y. R. BUIST.

COAL.

The subscriber has made an arrangement for a constant supply of superior Lehigh and Schuylkill Coal—carefully prepared for family use, which he will furnish *at the usual cash prices*, on application at the office of the Farmers' Cabinet, where samples of the different kinds and sizes may be seen.

JOSIAH TATUM.

Philadelphia, Tenth month 15th, 1846.

We keep on hand at this office, and will supply our friends with Agricultural works generally. Among which are

THE FARMER'S ENCYCLOPEDIA, full-bound in leather;—Price	$3 50
YOUATT ON THE HORSE, with J. S. Skinner's very valuable Additions;	2 00
BRIDGEMAN'S GARDENER'S ASSISTANT;	2 00
THE AMERICAN POULTRY BOOK;	37½
THE FARMER'S LAND MEASURER;	37½
DANA'S MUCK MANUAL;	50
Complete sets of the FARMERS' CABINET, half-bound, 10 vols.	8 50
DOWNING'S Landscape Gardening,	3 50
Downing's Fruits and Fruit Trees of America,	1 50
SKINNER'S Every Man his own Farrier,	50
AMERICAN Poulterer's Companion,	1 25
BOUSSINGAULT'S RURAL ECONOMY,	1 50
FARMERS' & EMIGRANTS' HAND-BOOK,	1 00
MORRELL'S AMERICAN SHEPHERD,	1 00
STABLE ECONOMY,	1 00
BEVAN on the HONEY BEE,	31¼
BUISTS' ROSE MANUAL,	75
THOMAS' FRUIT CULTURIST,	50
SKINNER'S CATTLE & SHEEP DOCTOR,	50
AMERICAN FARRIER,	50
THE FARMER'S MINE,	75
HOARE ON THE VINE,	62½
HANNAM'S Economy of Waste Manures,	25
LIEBIG'S AGRICULTURAL CHEMISTRY,	25
" ANIMAL CHEMISTRY,	25
" FAMILIAR LETTERS,	12½

As well as his larger works on Chemistry and Agriculture.

Subscriptions received for Colman's Agricultural Tour—or single numbers sold.

☞ We are prepared to bind books to order.

GUANO.

Twenty-five tons first quality Ichaboe Guano, in bags or barrels, for sale in lots to suit purchasers, by

S. & J. J. ALLEN & CO.,
No. 7 South Wharves, 2nd Oil Store below Market street, Philadelphia.

October 15th, 1845. tf.

Poudrette.

A valuable manure—of the best quality, prepared in Philadelphia, for sale at the office of the Farmers' Cabinet, No. 50, North Fourth Street, or at the manufactory, near the Penitentiary on Coates' street. Present price, for seven barrels or more, $1 75 per barrel, containing four bushels each. Any number of barrels less than seven, $2 each, or thirty-five cents a bushel. Orders from a distance, enclosing the cash, with cost of porterage, will be promptly attended to, by carefully delivering the barrels on board of such conveyance as may be designated. The results on corn and wheat have been generally very satisfactory. Farmers to the south and in the interior, both of this State and of New Jersey, are invited to try it. We are now able to supply the demand for wheat.

JOSIAH TATUM.

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All subscriptions must commence at the *beginning* of a volume. Having lately struck off a new edition of one or two of the former numbers, which had become exhausted, we are now able to supply, to a limited extent, any of the back volumes. They may be had at one dollar each, in numbers, or one dollar twenty-five cents half-bound and lettered.

For seven dollars paid in advance, a *complete set* of the work will be furnished in numbers, including the 11th volume. The whole can thus readily be forwarded by mail. For twenty-five cents additional, per volume, the work may be obtained neatly *half-bound and lettered.* Copies returned to the office of publication, will also be bound upon the same terms.

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Joseph Rakestraw, Printer.